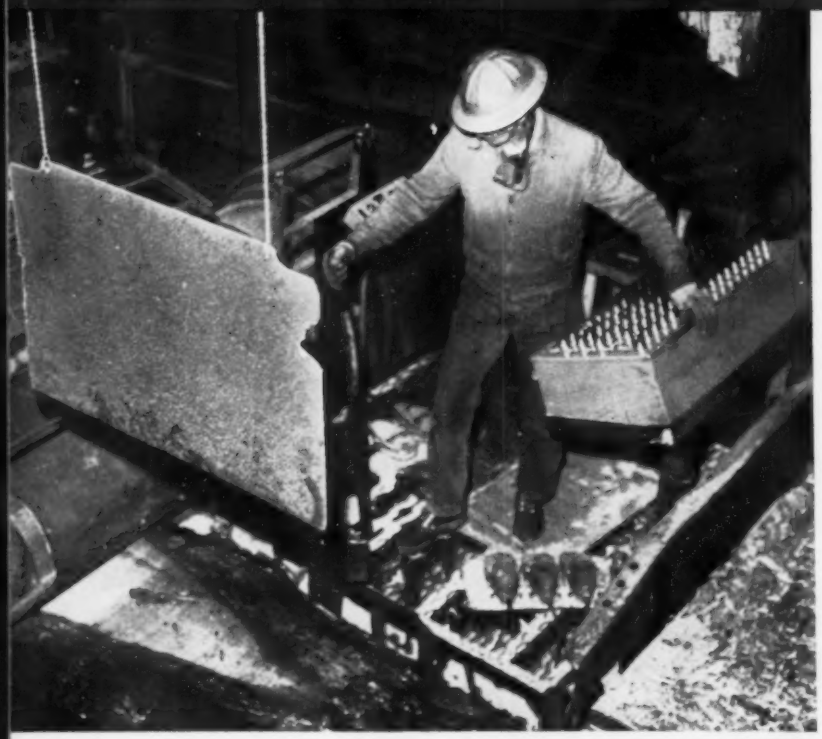
DECEMBER, 1960

THE Lumberman

LUMBER PLYWOOD BOARD WOOD MANUFACTURING



High Production Mill Regeared to Handle New Timber Types Pg. 40

Also in this issue

Board Plant Uses Hardwoods Pg. 60

Compact Sawmill In Michigan Pg. 56

High Production Plywood Plant With Efficient Material Flow Pg. 34

HIGHER YIELD – ASSURED WITH JACKSON

Jackson all-steel plywood lathes are designed for highly efficient operation with a minimum of maintenance. Such design innovations as retractable chucking and power drive back up rolls, assure the highest yield possible.

A Jackson Engineer is anxious to assist you.

Write, wire or call.

RETRACTABLE CHUCKING

Outer chuck extends to hold block at start of cutting . . . chuck retracts automatically as diameter of block is reduced.

world wide

JACKSON INDUSTRIES INCORPORATED

BIRMINGHAM, ALABAMA

Ask Any Truck Serviceman about Eaton 2-Speed Axles

Ask the man who has to keep trucks rolling. He'll tell you that Eaton 2-Speeds not only operate for long periods without attention, but that they also cut deep into over-all maintenance costs.

No one knows like a truck serviceman that matching axle gear ratios to the hauling job means easier going for all power units from engine to axle shafts. Eaton 2-Speeds let drivers select from *twice* the conventional number of gear ratios—the right ratio for the immediate road and load condition. Trucks stay on the job, out of the shop—last thousands of miles longer. And Eaton's many exclusive design features hold down maintenance on the axle itself. When repair is necessary, Eaton's simplified construction speeds the work and slices off costly hours of labor.

Before you specify driving axle equipment, let a truck serviceman give you the low-down on Eaton 2-Speed Axles.

EATON

More than
Two Million Eaton Axles
in Trucks Today

EATON

AXLE DIVISION
MANUFACTURING COMPANY
CLEVELAND 10, OHIO

VOLUME 87 • NUMBER 12

December, 1960

EDITORIAL STAFF

W. E. CROSBY.....Editorial Director
DEAN F. SHERMAN.....Editor
LEE R. FLATBERG.....Managing Editor
STANLEY M. JEPSEN.....Associate Editor
HAROLD H. KEIL.....Associate Editor
HERBERT G. LAMBERT.....Associate Editor
CHARLES L. SHAW.....Canadian Editor

BUSINESS STAFF

JAMES C. WALLACE.....General Manager
CHARLES W. COWMAN.....Sales Manager
HARRY C. CRIST.....District Sales Manager
JOHN LAUGHLIN.....Production Manager
CHARLES C. BAKKE.....Circulation Manager
J. B. OLSON.....Special Services Sales Manager

PUBLISHING OFFICES

PORTLAND 5, OREGON
731 S. W. Oak St., CApitol 2-1313
Cable: Milfreepub

ADVERTISING OFFICES

PORTLAND 5, OREGON
731 S. W. Oak St., CApitol 2-1313
C. W. Cowman, J. C. Wallace, H. C. Crist
SEATTLE 4, WASHINGTON
71 Columbia St., Main 2-1626
Cable: Milfreepub
SAN FRANCISCO 5, CALIFORNIA
500 Howard St., EXbrook 7-1881
Stuart F. Leete
Cable: Milfreepub
VANCOUVER 3, B. C.
402 Pender St., W., MUtual 5-7287
C. L. Shaw
Cable: Milfreepub
LOS ANGELES 65, CALIFORNIA
3501 Eagle Rock Blvd., CLinton 5-7194
Raul Rodriguez
NEW YORK 17, NEW YORK
370 Lexington Ave., MUrray Hill 3-9294
Cable: Milfreepub
CHICAGO 26, ILLINOIS
1791 Howard St., ROgers Park 4-3420
Kenneth A. Kruse
Cable: Milfreepub
CLEVELAND 3, OHIO
John C. Lickorish
4500 Euclid Ave., EXpress 1-4180
LONDON W. 1, ENGLAND
130 Crawford St. (Corner Baker St.)
Cable: Milfreepub
Bernard W. Lansdowne
Manager, United Kingdom
KOLN-MERHEIM, WEST GERMANY
28, Attendorner Str.
Dr. Walter F. Vogeno, Director
Continental European Operations
Cable: Milfreepub

PUBLISHED monthly except in December when semi-monthly, by MILLER FREEMAN PUBLICATIONS, 731 S. W. Oak Street, Portland 5, Oregon. Second class postage paid at Duluth, Minnesota.

ADVERTISING — Complete plates only should be sent to: THE LUMBERMAN, 1 East First St., Duluth, Minnesota. Advertising copy and cuts, insertion orders and all instructions should be sent to the publishing office: 731 S. W. Oak Street, Portland 5, Oregon.

Member of
Audit Bureau of Circulation
and The Associated
Business Publications

SUBSCRIPTION RATES—U. S., Canada, Mexico and other Pan American Union members—one year $4.00; two years $6.00; three years $8.00. Other countries — one year $5.00; two years $8.00; three years $11.00. Single copy 50 cents except Annual Plywood Review number $1.00.

CHANGE OF ADDRESS — Send subscription orders and changes of address to Subscription Department, THE LUMBERMAN, 500 Howard Street, San Francisco 5, California. Include both old and new addresses and zone number.
COPYRIGHT, 1960, by Miller Freeman Publications, Inc. Contents may not be reproduced without permission.

POSTMASTER: Please send Notice 3579 to THE LUMBERMAN, 500 Howard St., San Francisco 5, California.

A MILLER FREEMAN PUBLICATION

OFFICERS

WILLIAM B. FREEMAN.....President
MILLER FREEMAN, JR.....Executive Vice President & Treasurer

THE Lumberman

LUMBER PLYWOOD BOARD WOOD MANUFACTURING

Efficient Material flow built into high production plywood plant of Georgia-Pacific Corp. in Springfield, Ore. 34

Large Production Mill Regeared to handle changed timber requirements. Goal at Hines Lumber Co., Westfir, Ore., was to reduce operation to single shift and regear for handling increasing number of smaller logs 40

Showplace for Wood. Warren Brown used wood and wood products in an imaginative fashion in construction of new offices for his Brown's Tie & Lumber Co. operation in McCall Ida. 46

World Forestry Congress Report. Canadian researcher reports on sources of raw material for boards 53

U. S. Machines Up Output of Paul Chambriard S. A. sawmill in Brioude, France 54

Machinery Manufacturers and Distributors meet in joint session to discuss their common problems 54

Compact Mill of Steiger Lumber Co., Bessemer, Mich., employs indoor hot pond and all-steel edge sorter 56

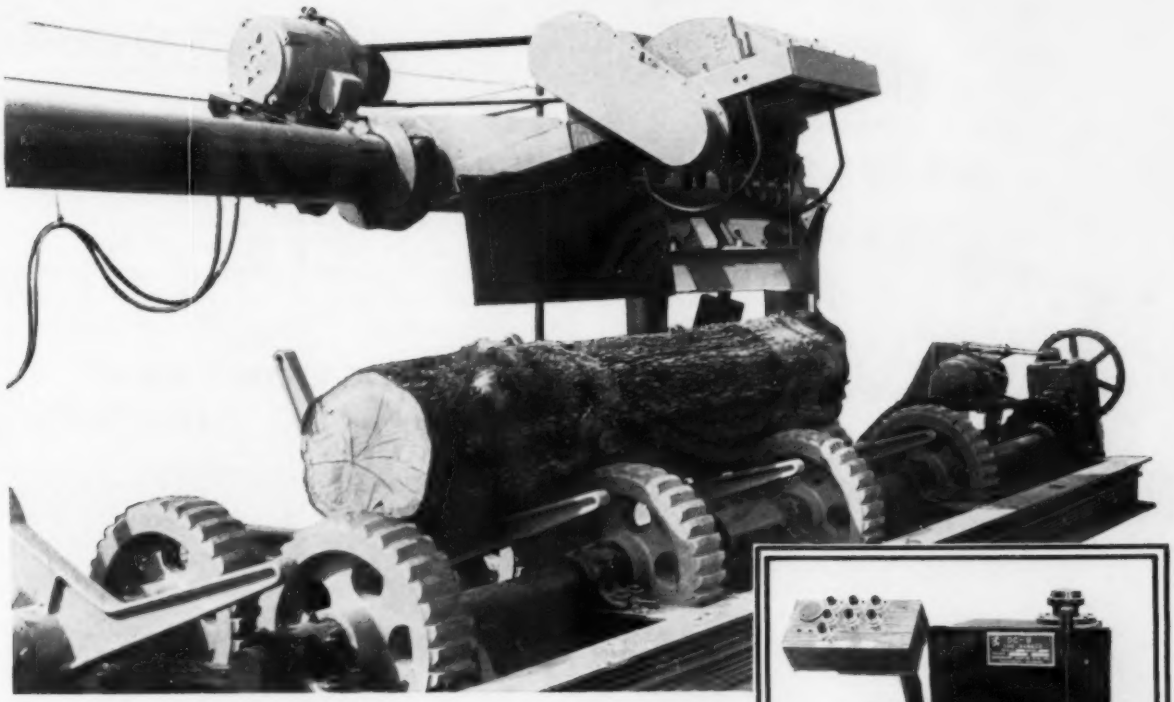
Highly Automatic Fiberboard Plant uses denser hardwoods. Celotex plant in L'Anse, Mich. will ultimately rely on hardwoods for 60% of its raw material 60

Plywood Sales Gain but can't keep up with increasing output. More promotion, marketing and quality are needed, industry leaders report at Douglas Fir Plywood Association's annual fall promotion meeting 68

DEPARTMENTS

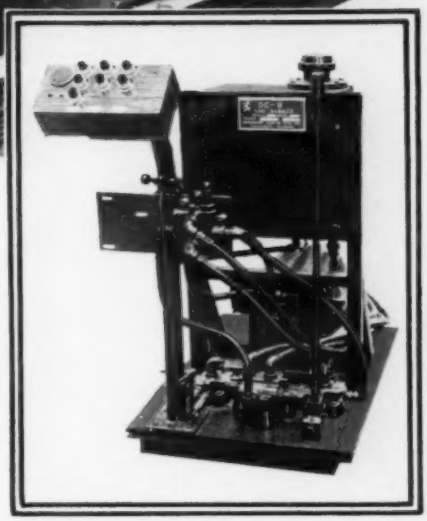
Significant News	8	Machinery & Supplies	70
Industry Trends	16	Lumber Prices	79
Saw Filers' Page	45	Industry Meetings	79
Forest Products Stocks	66	Buyers' Guide	79

Advertisers' Index 88



SODERHAMN DC-8 BARKER

A massive West Coast type machine available as a low-cost barker



Airplane-type hydraulic controls

The standard model DC-8 Barker will handle logs from 6″ to 60″ diameter, 6′ to 28′ in length. Also available in a larger model for logs 12″ to 80″ in diameter. It is built for extremely rugged conditions, and is easily installed on concrete foundations, at ground mills, or at regular log deck.

The base contains extra heavy duty Bull Wheels, reversible and variable in speed, mounted on 4-15/16″ shafts and bearings, driven by 10 HP electric motor. A hydraulic unit controls speed and movement of the barking head, as well as the built-in log kicker.

The barking head of the DC-8 is powered by a 50 HP motor, and uses shaver, scraper, or flail head.

Note the simplicity of the hydraulic controls, and the heavy shock absorbers built into the machine, which is especially designed for handling very heavy and knotty West Coast logs and large hardwood logs. The DC-8 Barker is a further development of the Soderhamn Machine Manufacturing Company's engineering staff, based on experience gained from the very successful DC-6 Barker.

Call, wire or write for details

SODERHAMN MACHINE MANUFACTURING COMPANY

Talladega, Alabama

West Coast: 9442 S.W. Barbur Blvd., Portland, Oregon

FRICK

SAWMILL and P&H DIESEL

provide time and money-saving team

• The smooth-working combination of three Frick sawmill units and a four-cylinder P&H diesel power unit provides efficiency and economy for the Big Branch Lumber Company operation in Sod, West Virginia.

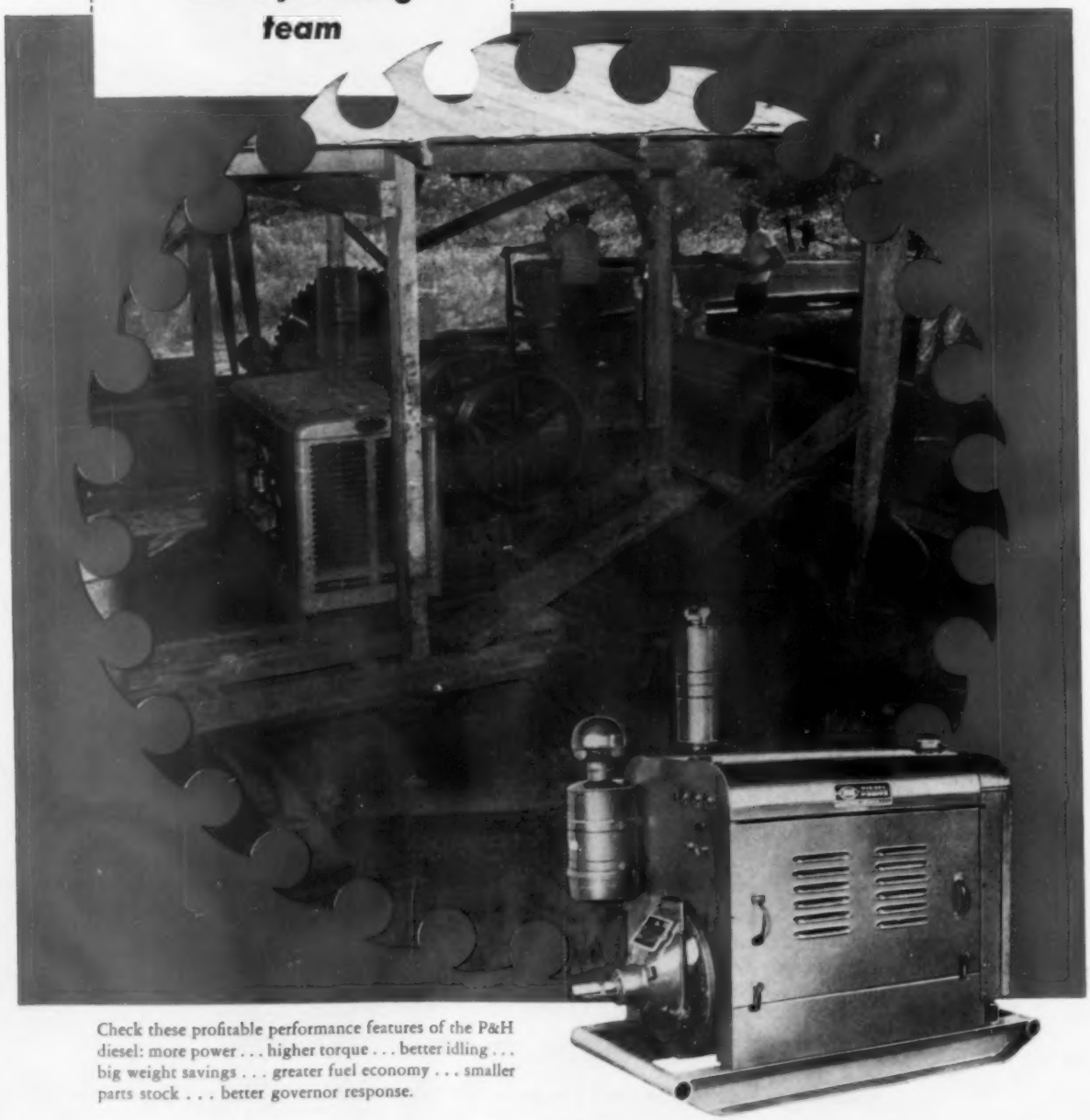
The P&H diesel, now in its fifth year of eight-hour-a-day operation at Big Branch, powers a Frick 01 mill, a Frick edger and a Frick cut-off saw.

This economical Frick-P&H combination results in faster and quicker cuts and less time lost for restarts.

The quality Frick sawmill equipment powered by this famous P&H diesel that features 25% fewer parts, provides a new economy team in sawmill operation.

FRICK COMPANY

WAYNESBORO PENNSYLVANIA



Check these profitable performance features of the P&H diesel: more power . . . higher torque . . . better idling . . . big weight savings . . . greater fuel economy . . . smaller parts stock . . . better governor response.

Shave conveying costs with LINK-BELT woodyard chains

On even the heaviest of woodyard conveyors, around either lumber or pulp mills, these Link-Belt chains give you the staying power necessary to keep operating and maintenance costs at a minimum.

C Class combination chain with steel sidebars, and center links of malleable or *Promal*, is a favorite conveying chain throughout the industry. Specify file-hard *Promal* for highly abrasive conditions (as with sandy bark) and for the extra strength and wear resistance demanded by heavy loads. And for even heavier duty conveyors, SS Class bushed chain is interchangeable on the same sprockets.

For further facts, contact your nearest Link-Belt office or authorized stock-carrying distributor listed under CHAINS in the yellow pages of your phone book. Or write for our new, comprehensive Catalog 1050.

LINK-BELT

CHAINS AND SPROCKETS

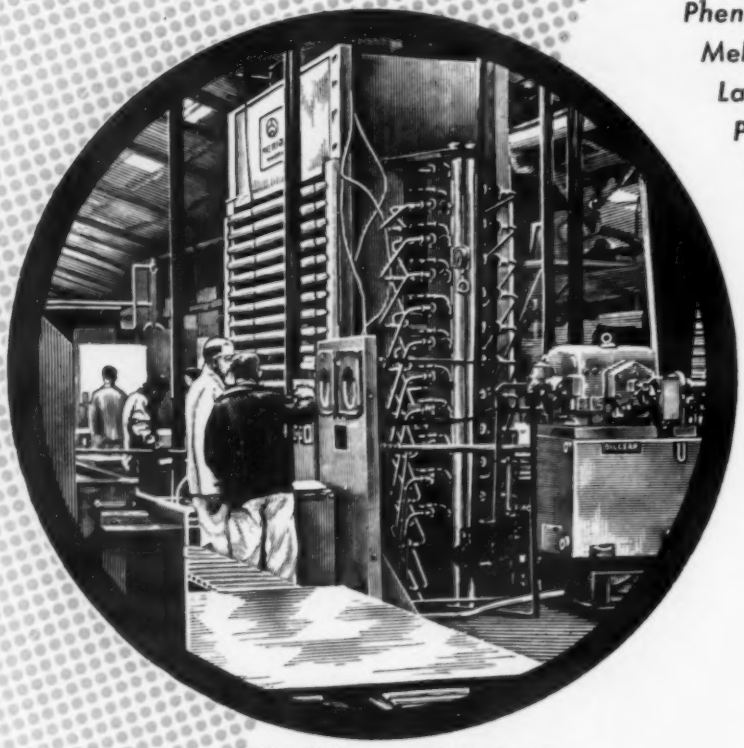
LINK-BELT COMPANY: To Serve Industry There are Link-Belt Plants, Sales Offices and Warehouses at San Francisco 24, Los Angeles 22 (Montebello), Seattle 4. Sales Offices and Warehouses at Portland 10, Spokane 10, Salt Lake City 1. Stock Carrying Distributors in Principal Areas.

15,087

MORE AND MORE DEMANDS FOR

MEIKI HOTPRESSES

for
Hard Vinyl Sheets
Phenol
Melamine
Laminates,
Particle Boards
Textile Boards
Overlay
Honeycomb
Plywood

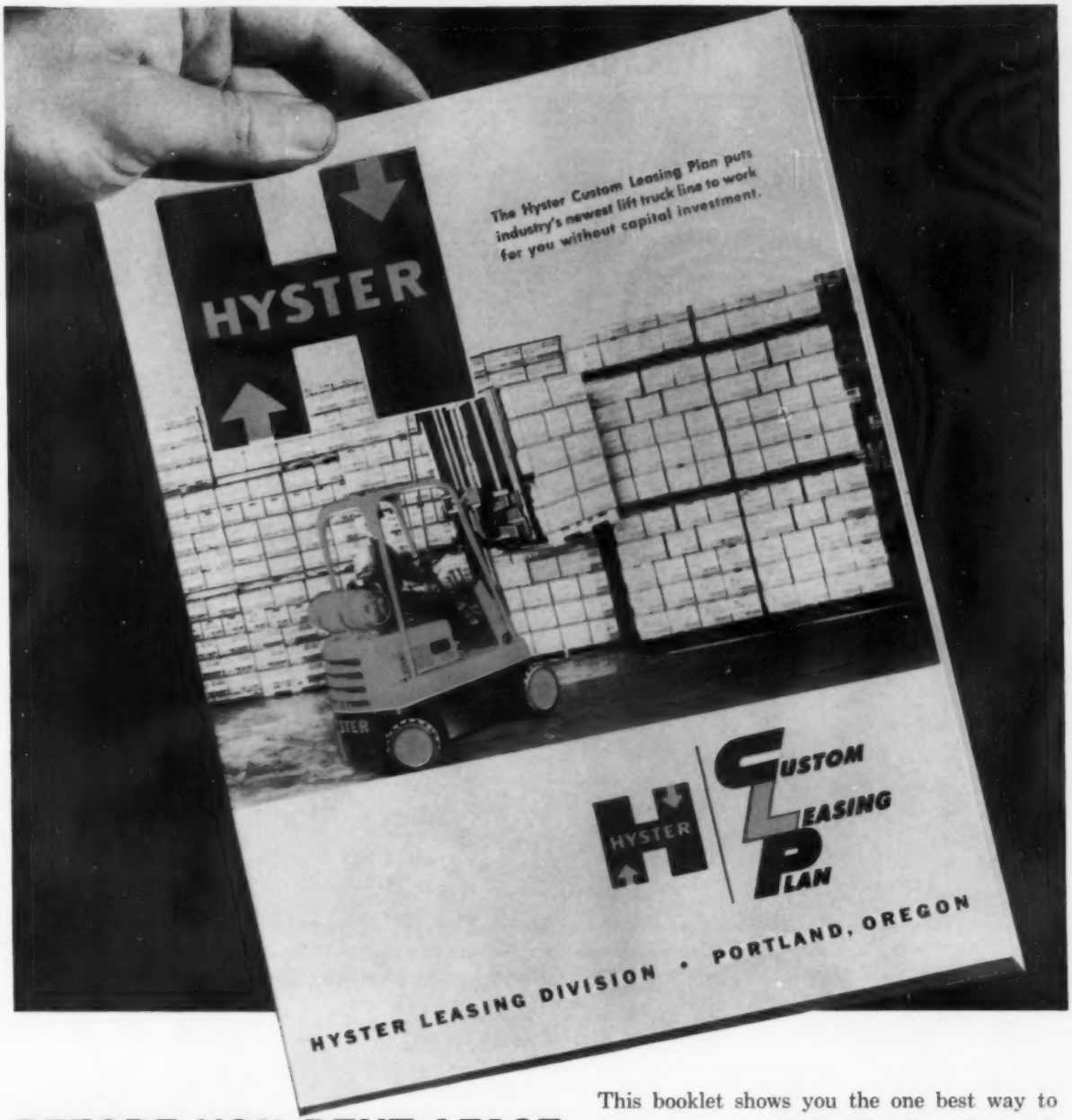


MEIKI PRESS WORKING AT
"THE PACIFIC COAST CO.," U.S.A.

MEIKI

MEIKI CO., LTD.

HYDRAULIC DEPT.
1, 2-chome, Shioiri-cho, Mizuho-ku,
Nagoya, Japan
Cable: MEIKILTD


HYSTER
The Hyster Custom Leasing Plan puts industry's newest lift truck line to work for you without capital investment.
HYSTER
CUSTOM LEASING PLAN
HYSTER LEASING DIVISION • PORTLAND, OREGON

BEFORE YOU RENT, LEASE OR BUY ANY LIFT TRUCK...

Read this Booklet!

This booklet shows you the one best way to finance your material handling fleet. One truck or 50 trucks—one day or 5 years—this Custom Leasing Plan fits your exact requirements.

Now you can get industry's newest lift trucks without capital investment—eliminate maintenance problems, and realistically budget your handling costs.

Get this booklet and full details from your Hyster Dealer, or write . . .

INDUSTRIAL TRUCK DIVISION—Lift trucks, mobile cranes, straddle carriers
TRACTOR EQUIPMENT DIVISION—Construction and logging equipment
MARTIN TRAILER DIVISION—Heavy machinery hauling trailers
INTERNATIONAL DIVISION—Overseas manufacturing, sales and service

Factories: Portland, Oregon (Home Office) • Danville, Ill. • Peoria, Ill. • Kewanee, Ill. • Nijmegen, The Netherlands • Irvine, Scotland • Sao Paulo, Brazil • Sydney, Australia (Licensee)

HYSTER CUSTOM LEASING PLAN

HYSTER COMPANY
HYSTER LEASING DIVISION
P. O. Box 4318 • Portland 8, Oregon

significant industry news

The Lumberman, December, 1960

General Outlook . . .

WHY THE BIG GET BIGGER . . . The blame for the disappearance of the small, family-owned business into the corporate structure of larger companies was laid at the door of Congress in a speech by Thomas J. McHugh, president of the National Lumber Manufacturers Association, at the group's annual meeting. He said: "The disappearance of the entreprenеur, the man who has built America, the courageous self-reliant ambitious proprietor of his own business rest squarely in the laps and on the consciences, I trust, of the Congress." He cited tax laws as the motivating factor for small companies to sell their assets to the larger. "The present tax structure has destroyed the incentive which has traditionally allowed the litle fellow to sell his business and retire, or leave his business to his children. Today we have the paradox of the little fellow seeking to find a snug harbor by selling out to a fully integrated operator where he can continue to earn a fair return and protect his investment from confiscatory taxation, while sharing the risks on a more integrated basis."

SMITH PURCHASE APPROVED . . . The California Division of Corporations has granted Kimberly-Clark Corp. permission to purchase Ralph L. Smith Co. in a $30 million stock exchange. Kimberly-Clark has announced it will build a pulp and paper mill adjacent to the Smith sawmill at Anderson, Calif., and continue operation of Smith plants.

WEYERHAEUSER BUYS PANEL PLANT . . . Lebanite Products Co., Los Angeles, Calif., a division of Cascades Plywood Corp., has been purchased by Weyerhaeuser Co. The plant fabricates panel products for industrial use.

G-P ADDS MEMPHIS FACILITIES . . . Georgia-Pacific Corp. has purchased Darrell Proctor Plywood Co. at Memphis, Tenn., and will incorporate its wholesale distribution warehouse into G-P's nationwide sales system. Former owners J. W. Forbes and Darrel Proctor will remain with the corporation.

STRONGER THAN STEEL? . . . Researchers at Washington State University in Pullman, Wash., report basic research shows that wood fiber, pound for pound, is 20 times stronger than steel. Also, it has three to four times the strength, pound for pound, of piano wire. The lab men are investigating the composition of wood with the view to determining methods of rebinding wood fibers in a product possessing the original high fiber strength. The laboratory also reports progress in sonic grading of wood.

MORE COMPONENTS . . . Architect John N. Highland urged members of the Northern Sash & Door Jobbers Association at their annual meeting in Chicago to engineer and market various components that can both replace old style methods of design and eliminate some of the excessive costs which occur in home construction. He cited such items as garage door assemblies, entrance door assemblies with vapor drains and planters, built-in laundry and sewing centers, realistic pre-fab fireplaces, skylighting, luminous ceiling panel systems, fences, patio panels, wind screen and structural beauty system. He warned that when an industry fails to provide the services required of it, then it is not long until that industry is replaced.

More INDUSTRY NEWS on page 10

Three years logging big timber before track rollers pulled for maintenance

Tractors get rugged use at Union Lumber Company, Ft. Bragg, California. But . . . using RPM Tractor Roller Lubricant, they average 4200 hours operation before track rollers are pulled for maintenance!

"We just rebuild the shells," reports Oscar Harrison, Superintendent of Maintenance for logging equipment, "RPM Track Roller Lube keeps the shafts and bushings in such good condition they go right back in. Each of our 27 tractors works about 1400 hours a year . . . goes at least three seasons before the track rollers need attention! We've used RPM Track Roller Lube roughly 24 years."

Equipment notes: Union uses Caterpillar D-7, D-8 and International TD-24 tractors for road building, skidding . . . rollers are lubricated only once a week. Firm has a fully integrated logging-lumbering system . . . one of the biggest redwood mills in the U. S.

Lubrication problems? Let a technically qualified Standard Engineer solve them for you. His practical experience and a wide range of top-quality products assure an economical solution to your problem.

The largest field force of lubrication engineers in the West is at your service. For this valuable free technical help, just call your local Standard office, or write Standard Oil Company of California, 225 Bush Street, San Francisco 20.

RPM

STANDARD OIL COMPANY OF CALIFORNIA

TRADEMARKS "RPM" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

PARTICLE BOARD STANDARDS . . . "Industry representatives should establish standards and then comply with them if they want FHA acceptance for their products," Donald J. Guthridge, chief, property requirements section, FHA, told members of a particle board seminar meeting at the U. S. Forest Products Laboratory in Madison, Wis. Members of the National Particleboard Association's technical committee agreed that a major problem facing their industry is establishment of an industry-wide standard for particle board intended for exterior use. At a closed session following the seminar, the technical committee adopted a set of recommendations that will be submitted to the association membership for consideration and further action.

MORE FLOORING RESEARCH . . . The National Oak Flooring Manufacturer's Association has authorized a research project designed to develop more efficient and economical methods of installing strip oak floors in basementless houses built on concrete slab foundation. The study will be conducted by Arthur D. Little, Inc., Boston, Mass. Research is currently underway at Washington State University, Pullman, Wash., on methods to increase wood flooring use in home construction. The present system for strip oak flooring use involves wood screeds embedded in mastic on top of the concrete to which the strips are attached.

LUMBER EXPORTS CLIMB . . . The United States exported 452.9 million board feet of lumber in the first half of 1960, an increase of 26% over the same period in 1959. Imports declined 3.6% to 1.94 billion feet. Other highlights in a report from the Forest Products division, Business and Defense Services Administration follow. Softwood lumber exports of 361.5 million feet were 34% greater than a year ago. Douglas fir showed the largest increase, 58%, to 207.6 million feet. Southern Pine climbed 38% to 35 million feet. Hardwood exports increased 6% to 59.5 million feet. With exception of Canada where there was a 20% decline, exports to most markets increased. Movement to Africa gained the most. This continues a trend of recent years. Softwood imports of 1.79 billion feet were 4% below a year ago. Hardwood imports declined 4% to 141.7 million feet.

B. C. BOOSTS U.K. PLYWOOD SALES . . . Demands of the British automotive industry for fir plywood to package cars for shipment has boosted the volume of British Columbia Douglas fir plywood selling in the U. K. market. Plywood sales in the U. K. this year are expected to total about $14 million. B. C. plywood is replacing softwood plywood formerly imported by British companies from Baltic countries.

B. C. PLYWOOD OUTPUT . . .Total for the year is expected to be about 1 billion square feet, according to an estimate by the Plywood Manufacturers Association of B. C. Past marks were 932 million square feet in 1959 and an all-time high of 1.3 billion square feet in 1958.

WOOD PALLET ACTIVITY UP . . . Wooden pallet production should set a new record in 1960. Output hit a peak level during the first five months, dipped slightly in the third quarter, but is expected to be up again in the final quarter, the National Wood Pallet Manufacturers Association reports.

FIR PLYWOOD CONTINUES UP . . . The Douglas Fir Plywood Association quarterly statistical report shows these upward trends for the first nine months of the year, compared to a year ago: Production up 3.7%, from 5.736 billion square feet to 5.946 billion square feet; orders up .9% from 5.696 billion square feet to 5.749 billion square feet; shipments up 4.2%, from 5.583 billion square feet to 5.818 billion square feet. Plant capacity for 1960 is set at 6.764 billion square feet, almost a billion feet over production.

More INDUSTRY NEWS on Page 12

THIS GIFT GIVING IDEA IS SO SIMPLE

it's a wonder someone didn't think of it before . . .

If YOU have the problem of selecting the Christmas gifts that must please EVERY ONE of your employees, prospects or customers, the smartest way out is TO LET THEM PICK THEIR OWN GIFTS.

The above pictured GIFT-BOOKARD is the simple, sensible and economical way of doing just that. It enables you to say "Thank You" to anyone . . . without first trying to read their minds . . . and without the inevitable mistakes.

The Gift-Bookard is a combination of personalized Greeting Card, a registered Gift Certificate in the form of a postage paid reply card, and a colorful booklet offering recipients a choice of 24 impressive gifts.

The Gift-Bookard eliminates all work and worry on your part. All you do is order the exact quantity you need, whether 50 or 50,000. We imprint the covers (or you may design and print your own) and supply mailing envelopes. Each person who receives a Gift-Bookard from you picks the one gift he or she prefers, by mailing the attached Registered Gift Certificate card back to us. We supply the gifts, wrap them and ship them prepaid . . . all for only $6.50 each.

A special feature of the Gift-Bookard is the useful and worthwhile nature of the gifts, each of which is valued to $10. and is unconditionally guaranteed. The 24 gifts are shown in full color and almost anyone would enjoy personally choosing and using any of these beautiful gifts.

What's more, you have tastefully exposed your name to the recipients twice . . . once with the Gift-Bookard, then with the gift. You save time, labor and money through group purchasing and handling . . . you create lasting goodwill impressions on your customers, prospects or employees . . . all for the modest $6.50 price.

Fact is, leading executives have said that the Gift-Bookard is the most important new idea for solving the problems inherent in obligatory gift giving to come along in many a year.

The next move is yours. If you'd like to see a sample Gift-Bookard, fill in the coupon below and mail to us – no obligation of course. Or . . . possibly you can refer this ad to someone in your company who might be interested.

IMPORTANT FACTS TO KNOW . . .

The U. S. Senate, in an effort to close "loopholes" in existing tax laws, has recommended a clampdown on tax exemptions for business expenses. The amendment would LIMIT DEDUCTIBLE GIFTS TO A $10 VALUATION. (This excerpt is from Page 1 of the N. Y. Herald Tribune of June 21st, 1960.)

Gallery of Gifts, Inc., 80 Park Ave., N. Y. 16, N. Y.

---------- CLIP AND MAIL ----------

Gallery of Gifts, Inc., 80 Park Ave., New York 16, New York

Gentlemen:

We use approx._____gifts each year in the $6.50 price range. Please send sample of your Gift-Bookard to us. We understand there is no obligation.

Name_____

Title_____

Company_____

Address_____

City_____ **Zone**____ **State**_____ **LU**

NIGERIA FOREST STUDY SET . . . Industrial Development Co., Inc., Tacoma, Wash., has been awarded a contract from Rockefeller Bros. Fund to study the timber potential of Nigeria in Africa. Industrial Development, designer of flakeboard and hardboard plants, is to complete the study by April, 1961.

INTERNATIONAL WOOD RESEARCH SOCIETY . . . This group has been established under auspices of the United Nations Food and Agriculture Organization to promote more efficient utilization of wood and wood products. Dr. B. Thunell, Sweden, is president. Vice-presidents are professor J. Campredon, France, and Dr. L. J. Markwardt, United States. Executive committee members are S. A. Clarke, Australia; professor J. Collardet, France; professor F. Kollmann, Germany; and F. Najera, Spain.

At The Plant Front . . .

CANADIAN BOARD PLANT PLANNED . . . A $3 million particle board plant will be built at Sprague, Manitoba, according to an announcement by Fred L. Johnson, president of Columbia Hardboard Co., Seattle, Wash., and Gurney Evans, minister of Industry and Commerce. Construction will be started immediately and production is anticipated in the summer of 1961. The plant will process poplar and will have a capacity of about 10 million square feet annually.

C-Z TO ADD LAYUP PLANT . . . A plywood plant with a monthly capacity of 10 million square feet will be built adjacent to Crown Zellerbach Corp.'s veneer plant in St. Helens, Ore. Peeling capacity of the veneer plant will also be increased from 7 million square feet to 12 million square feet. Production at the layup plant is anticipated in the fall of 1961.

VENEER PLANT UNDER CONSTRUCTION . . . Production is expected about February 1 at a new veneer plant being built at Randle, Wash., by North Pacific Plywood, Tacoma, Wash., Puget Sound Plywood, Tacoma, Wash., and Anacortes Veneer, Anacortes, Wash. The plant will supply the three firms with green veneer.

NEW JAPANESE PLYWOOD PLANT . . . Japan Plywood Co., Ltd., plans construction of a lauan plywood plant in Tokyo. A production of 2.5 million square feet a month is anticipated. Output will be sold in the domestic market.

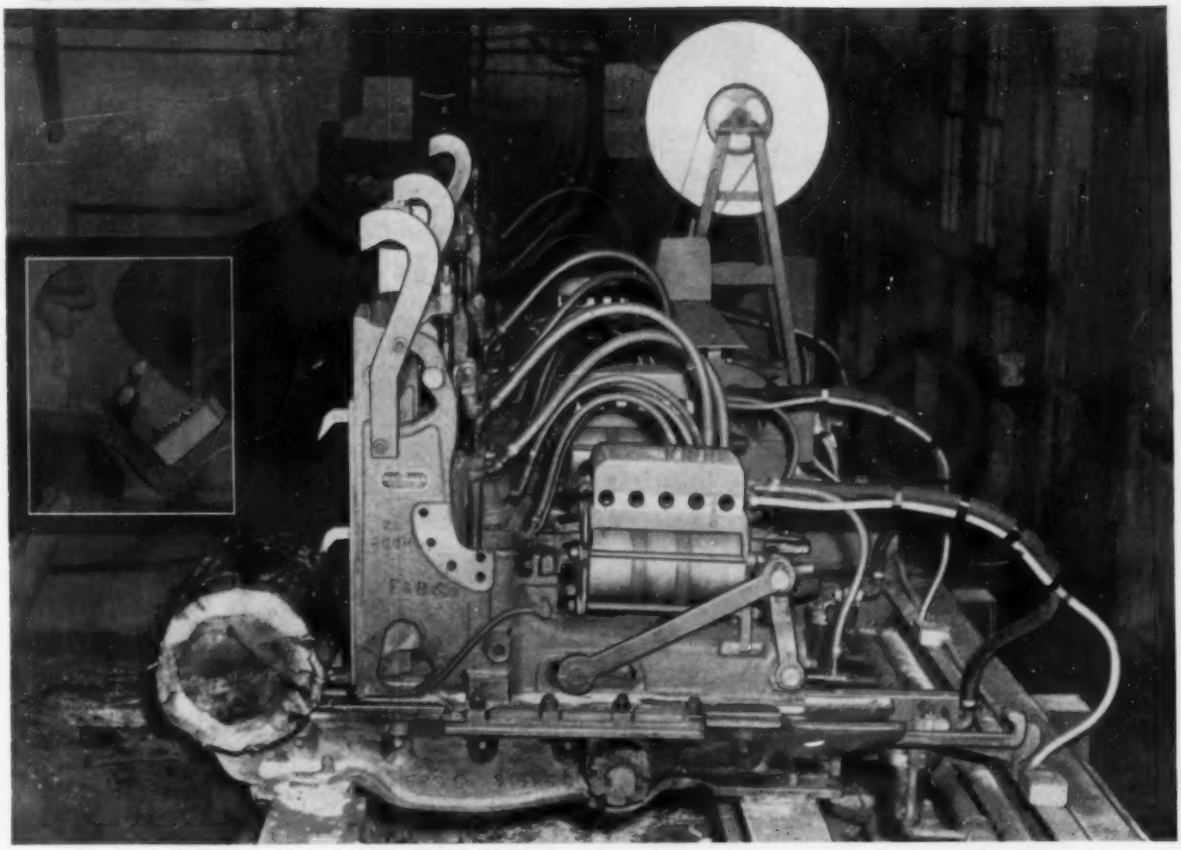
LONG-BELL CHELATCHIE PLANTS OPERATING . . . The new Chelatchie branch of International Paper Co.'s Long-Bell division in Washington started production in November. The plywood plant is capable of producing 72 million square feet of plywood sheathing annually. The lumber department consists of a sawmill, dry kilns, planing mill and 800x112-foot lumber handling building. Articles on the modern production facilities are being prepared for early publication in *The Lumberman*.

PLYWOOD COMPONENT PLANT . . . Pre-Bilt Components has been established at Greeley, Colo., by Herman Wolff to manufacture box beams, stressed skin panels, curved or barrel vault panels, Trof-dek roofs, roof trusses and floor sections. The firm is a licensee of Plywood Fabricators Service, Inc., Tacoma, Wash.

TREATING FACILITIES ADDED . . . J. D. Weekley Lumber Co., Tampa, Fla., has installed Osmose salts pressure treating facilities at its wholesale operation.

STUD MILL ADDED . . . A new plant to produce pre-cut Douglas fir studs has been installed by Robert Dollar Co. at Glendale, Ore. Production will be about 20 cars a month.

STEPS UP PRODUCTION 15%



Accuracy of Cutting Uniform Lumber "Practically Perfect!"

Performance in the field counts! After a score of installations, here's what some users of Filer & Stowell's new Sawyer Operated Setworks have to say —

"The accuracy of the setworks is practically perfect . . . Our production has ranged as high as 15% above normal."

— John M. Tully, Vice-President,
Anderson-Tully Co.,
Memphis, Tenn.

"We have increased our lumber production 35%. In the manufacture of veneer flitches, we have gone from 40 to 60 per hour . . . Our sawyer does 95% of his sawing sitting on a swing seat."

— S. R. Williams, Plant Superintendent
Pierson-Hollowell Co., Inc.,
Lawrenceburg, Ind.

"Our maintenance record is excellent and far beyond our expectations."

— Milton Craft, President,
Chapman & Dewey Lumber Co.,
Memphis, Tenn.

"Our production has increased 500 to 600 feet per hour, with no maintenance or down time since installation."

— George L. Schoenemann,
Gen. Superintendent
W. T. Carter & Brother,
Camden, Texas

"We find that the accuracy of setting on this Carriage is by far superior to anything we have ever used, or have seen."

— W. L. McGehee,
McGehee Lumber Company,
Natchez, Miss.

For complete details, write for literature or to have Representative call.

FILER & STOWELL COMPANY

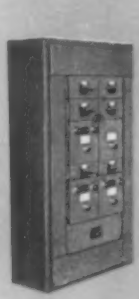
Since 1856
147 East Becher St., Milwaukee 7, Wisconsin
World's Largest Builders of Heavy Duty Sawmill Machinery

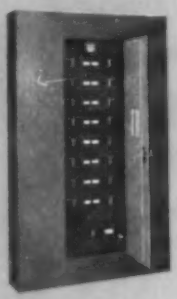
Safety Switches for Normal and Hazardous Locations

Industrial Circuit Breakers for Normal and Hazardous Locations

Load Centers—Circuit Breaker and Fusible

...design leadership ...design

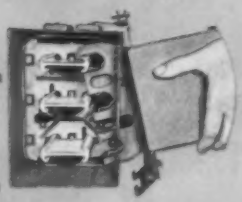


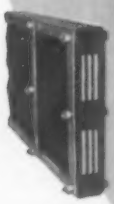


Fusible and Circuit Breaker Lighting and Power Panelboards

Power Distribution Switchboards and Switchgear

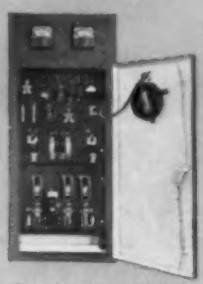
Plug-In Duct



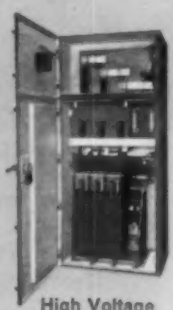


Feed-In Duct

Motor Control Centers



Synchronous Motor Starters



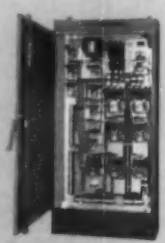
High Voltage Starters

Wireways

Field Engineering Service

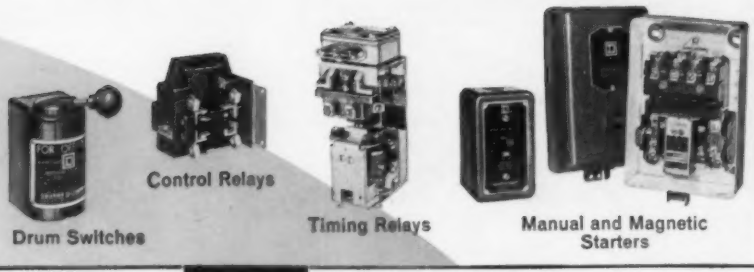
is available through more than one hundred Square D offices, backed by an international network of over 1000 authorized electrical distributors and 19 plants in the United States, Canada, Mexico and Great Britain.

Square D Company, 4335 Valley Blvd., Los Angeles 32, Calif.



Special-Purpose Control

SQUARE D COMPANY



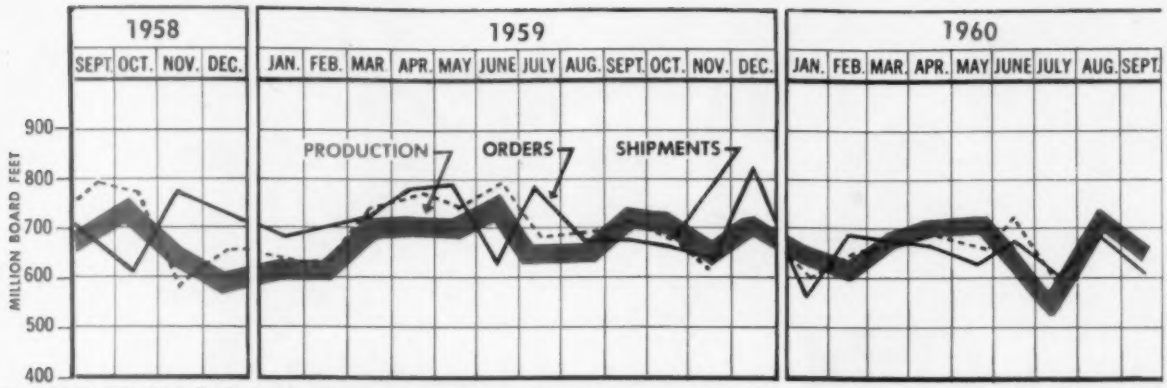
A *Complete* LINE OF ELECTRICAL DISTRIBUTION AND CONTROL EQUIPMENT

leadership D *...design leadership*

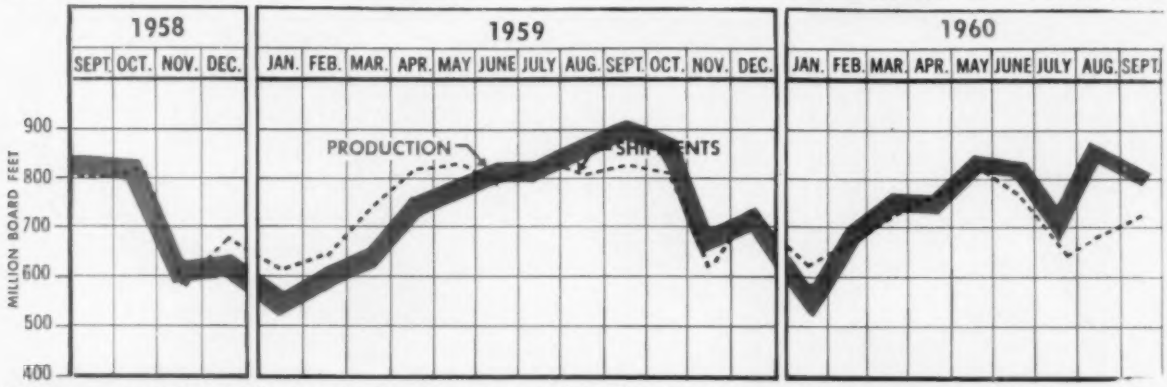
- ADJUSTABLE SPEED DRIVES
- BUSWAYS & WIREWAYS
- CIRCUIT BREAKERS
- CONTROL CENTERS
- CRANE & HOIST CONTROL
- DISTRIBUTION SWITCHBOARDS
- ELECTRIC TRUCK CONTROL
- HIGH VOLTAGE CONTROL
- LAUNDRY CONTROL
- LIFTING MAGNETS
- LIGHTING AND POWER PANELBOARDS
- LIGHTING CONTROL — LOW VOLTAGE
- LIMIT AND FOOT SWITCHES
- MACHINE TOOL CONTROL
- MAGNETIC BRAKES
- METER MOUNTINGS
- MOTOR STARTERS
- PRESS CONTROL
- PRESSURE, FLOAT, & VACUUM SWITCHES
- PUSHBUTTONS
- RELAYS AND CONTACTORS
- RESISTORS
- SAFETY SWITCHES
- SERVICE ENTRANCE EQUIPMENT
- STAGE DIMMERBOARDS
- STEEL MILL CONTROL
- SWITCHGEAR & UNIT SUBSTATIONS
- SYNCHRONOUS MOTOR CONTROL
- TERMINAL BLOCKS
- TEXTILE MACHINE CONTROL
- TIMERS
- VOLTAGE TESTERS
- WELDER CONTROL

wherever electricity is distributed and controlled

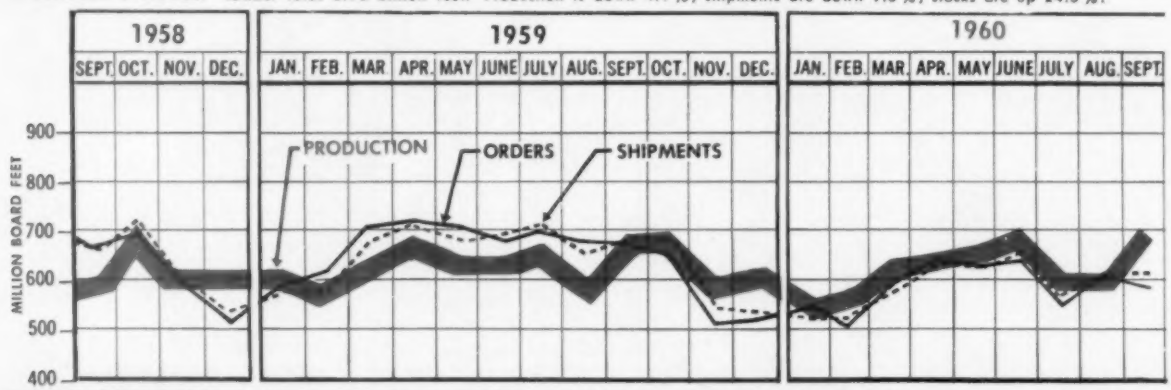
INDUSTRY TRENDS



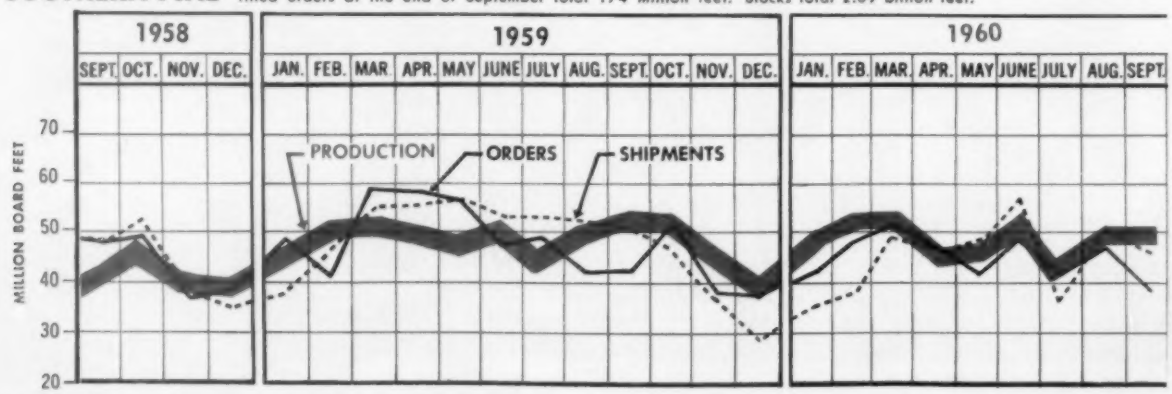
DOUGLAS FIR Production for nine months totals 6.213 billion feet, orders 5.853 billion feet, shipments 6.109 billion feet. Unfilled orders at the end of September total 447 million feet. Inventory at the end of September totals 1.1 billion feet.



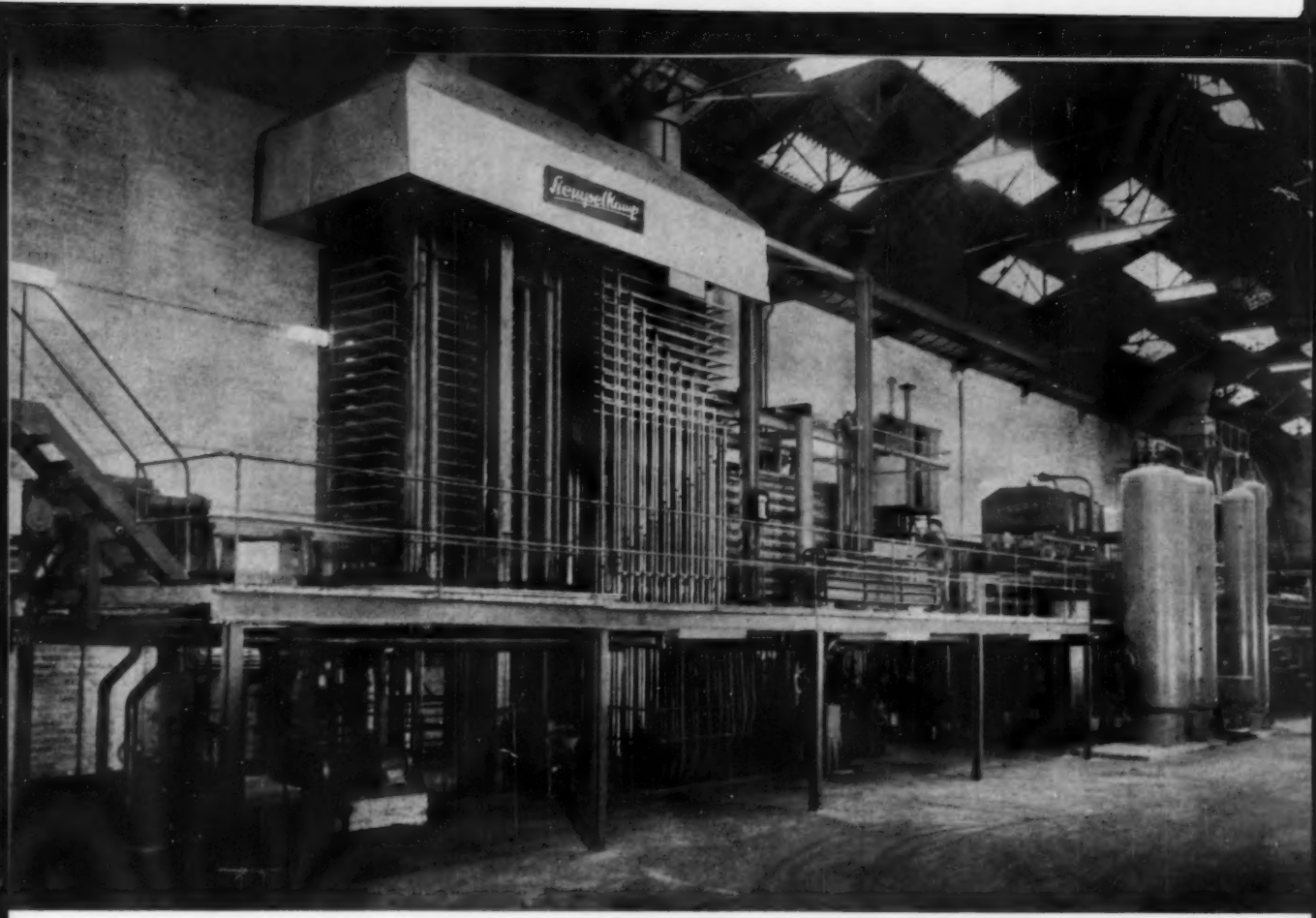
WESTERN PINE Lumber production for nine months totals 6.80 billion feet, shipments 6.52 billion feet. Stocks at the end of September total 2.10 billion feet. Production is down 4.1%, shipments are down 9.3%, stocks are up 24.5%.



SOUTHERN PINE Lumber production for nine months totals 5.44 billion feet, shipments 5.29 billion feet, orders 5.27 billion feet. Unfilled orders at the end of September total 174 million feet. Stocks total 2.09 billion feet.



REDWOOD Lumber production for nine months totals 453.6 million feet, shipments 410.6 million feet, orders 404.4 million feet. Unfilled orders at the end of September total 55.6 million feet. Gross stocks total 405 million feet.



Automatic press plant of Messrs. Linex - Belgium

Chip Board and Particle Board Press installation

suitable for:

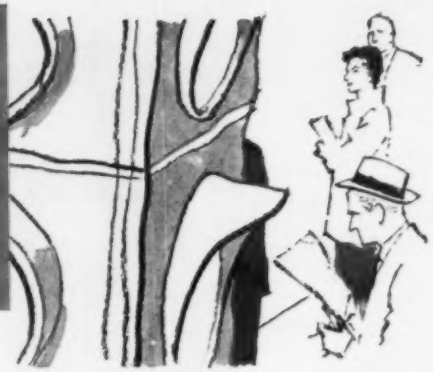
- All Types of applicable raw materials
- All Manufacturing processes
- All Stages of automation
- All required capacities

Siempelkamp

G. Siempelkamp & Co. · Maschinenfabrik · Krefeld

Telegramme: siempelcampco, Krefeld · Telefon: 28251 · Telex: 0853811

"How do you feel Savings Bonds match up against common stocks as an employee investment?"



"You really can't compare the two, Jimmy! As you know so well, every good investment plan needs a sound backlog of basic safety and you need some savings before you branch out with anything else. Now, we don't know of ANY sounder, safer form of saving than U.S. Savings Bonds. We felt we were doing our people a real favor by asking our State Savings Bond Director to help us explain the Payroll Savings Plan to every person on our payroll.

"Until we put on this company-wide campaign, lots of people in our company had no idea they could set up a regular, *automatic* savings plan by just signing one card. They welcomed having someone to answer their question *in person*, and it appealed to their pride to be made a part of the company group contributing to our country's economic welfare.

"And, Jimmy, here was another thing we found out. Many of our employees didn't realize that since U.S. Savings Bonds now earn 3¾% they are the best investment they have EVER been!"

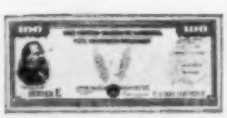
Perhaps there are employees in *your* organization who don't know what a splendid base for family savings U.S. Savings Bonds really are. Perhaps they don't realize how easy it is to start NEXT PAYDAY with regular, systematic savings for important future goals.

Your State Savings Bonds Director has a fine background of experience in presenting the Payroll Savings Plan. For fast, understanding help, get in touch with him now. Or write Savings Bonds Division, U.S. Treasury Department, Washington, D. C.

NOW! U. S. SAVINGS BONDS EARN 3¾%

THE LUMBERMAN mf A MILLER FREEMAN PUBLICATION

Publishing Office: 731 S. W. Oak Street, Portland 5, Oregon



THE U. S. GOVERNMENT DOES NOT PAY FOR THIS ADVERTISEMENT. THE TREASURY DEPARTMENT THANKS, FOR THEIR PATRIOTISM, THE ADVERTISING COUNCIL AND THE DONOR ABOVE.

THE Lumberman
THE Timberman
HANDBOOK
and
DIRECTORY
of the
Forest Industries
1961 . . . 42nd ANNUAL EDITION
VITAL TO THOSE WHO BUY OR SELL
TO THE FOREST INDUSTRIES
The only Forest Industry Directory that lists logging firms, logging contractors, sawmills, planing mills, plywood and veneer plants, board plants, woodworking plants, wood preserving plants in all the major forest producing areas of the United States—East, South, West and the Lake States, Canada, and the Philippines. The additional statistical and reference data on the industry combine to make this Handbook and Directory a priceless possession for operators and those selling this vast basic resource market.
READY NOW!
ORDER YOUR COPY FOR 10-DAY FREE EXAMINATION
MORE THAN 525 PAGES
20,000 NAMED POSITIONS
OVER 16,000 FIRMS LISTED

Table of Contents

- Board Manufacturers
- Box Factory Listings
- Door Manufacturers—Stock Doors
- Forest Industries Associations
- Forest Products Buyers Guide
- General Index to Mills and Logging Camps
- Logging Contractors
- Plywood and Veneer Plant Listings
- Sawmill and Logging Camp Listings (by States)
- Sawmill Top Producers
- Shake Producers
- Shingle Mill Listings
- U. S. Forest Service
- Statistical Data and Charts
- Wholesale Lumber Dealers and Exporters
- Wood Preservation Plants
- Woodworking Section

Price: $17 postpaid

You may examine a copy of this big book for 10 days FREE!

The LUMBERMAN & The TIMBERMAN
500 Howard Street • San Francisco 5, California

• Circulation Department

Send.....copies of the 1961 Handbook & Directory of the Forest Industries. After 10 days we will remit on your invoice at $17 per copy* or return the book.

☐ Check here if you send payment in advance. Same return privilege.

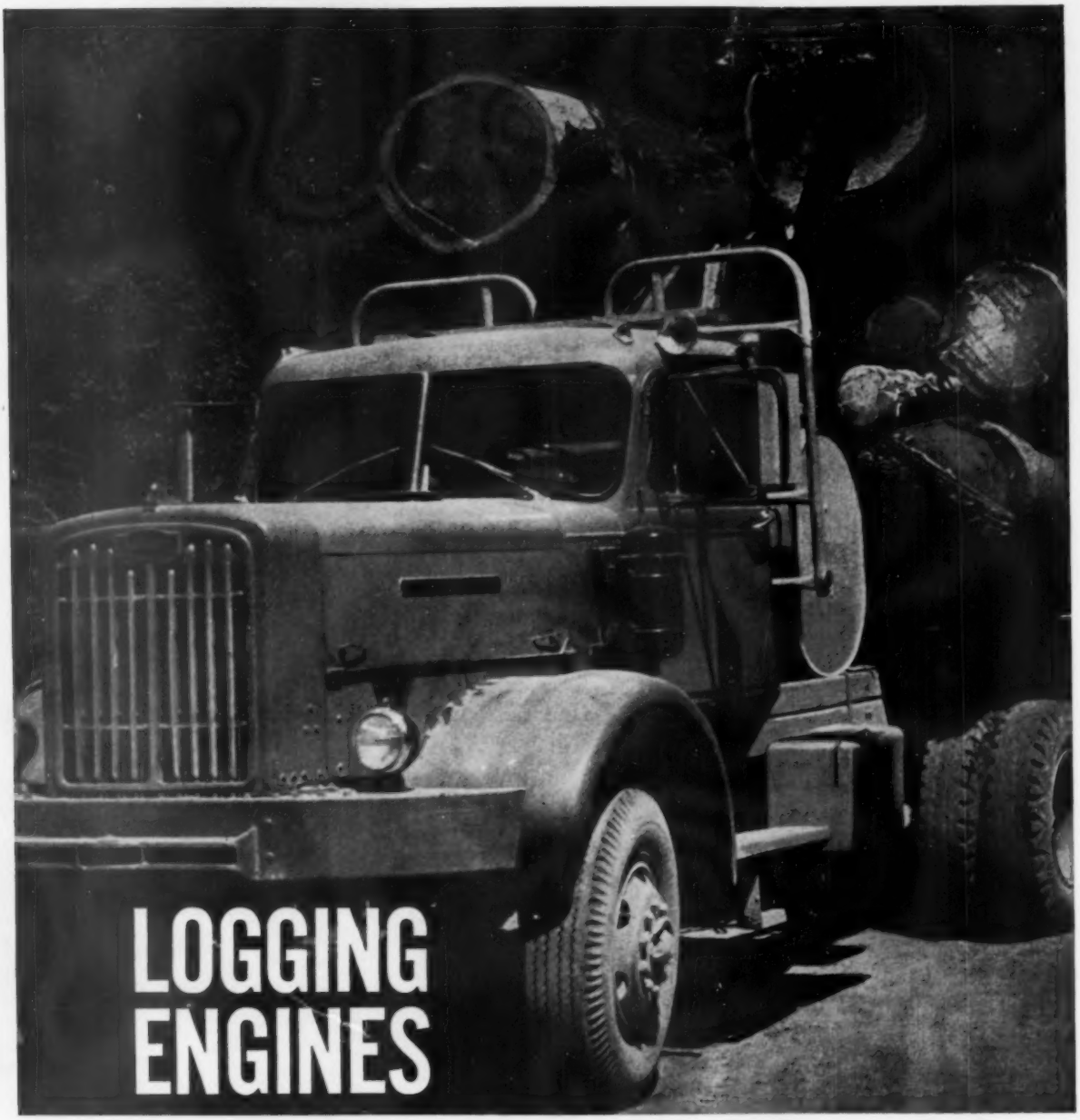
firm name .....

to the attention of .....

address .....

city ..... zone ..... state* .....

(California residents add 68c sales tax)



WORK STRONGER LONGER WITH FLYING A!

Logging engines have to muscle through a rugged world of wood—way out where repairs are tough to make. That's why you need petroleum products which give your engines extra protection as well as peak power. And Flying A makes them!

Flying A's diesel fuels, gasolines, oils, greases and lubricants are made to highest quality specifications. They keep engines running stronger longer.

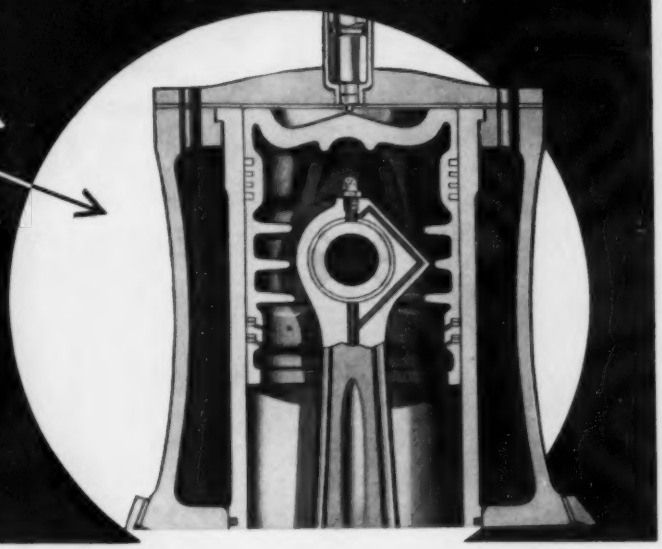
Find out how Flying A's quality products and better service can help *your* operation. Call your nearest Tidewater man today!

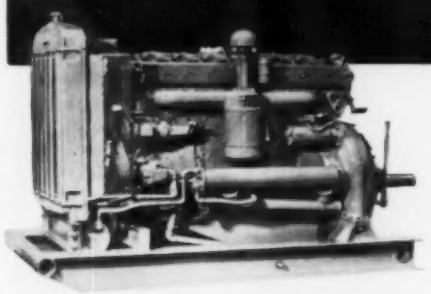
FLYING A SERVICE

GASOLINES
DIESEL FUELS
OILS
GREASES
LUBRICANTS

TIDEWATER OIL COMPANY

Another way you save money with a MURPHY DIESEL





MORE MONEY-SAVING FEATURES

Unit Fuel Injectors serve as both pump and nozzle to provide precise control, faster response and greater fuel economy with minimum downtime, minimum attention.

Hydraulic Servo-Type Governor assures immediate response to load change and protects engine from damage if lube oil pressure drops below a safe level.

Four Valves Per Cylinder have greater breathing capacity for cooler running, and permit higher power output.

Murphy Diesel MP Series engines and power units, 105 to 320 HP; generator sets, 60 to 227 KW; dual fuel engines, 147 to 227 HP; marine engines, 105 to 315 HP.

"TRUE" DIESEL OPERATION ASSURES

greater fuel economy
uninterrupted service
faster starting
smoother performance

If you want to get more power from every drop of fuel, smooth-running performance, and long service life, be sure you get a "true" diesel.

Murphy Diesel is a "true" diesel. The cross section above shows the combustion chamber. Note that it is plain and open. There is no pre-mixing chamber, no artificial device to create turbulence and affect combustion. In a Murphy, the unit fuel injector, located in the center of the combustion chamber, sprays completely atomized fuel directly into all parts of the air charge. Since all the fuel burns immediately upon injection into the incandescent air charge, combustion is controlled solely by the unit injector, which in turn is precisely controlled by the hydraulic servo-type governor.

Ask your Murphy Diesel Dealer for proof of Murphy's ability to save you money.

MURPHY DIESEL COMPANY
5351 W. Burnham St. Milwaukee, Wisconsin

MURPHY DIESEL ENGINE FEATURES MEAN MORE BOARD FEET AT LOWER COST

MURPHY DIESEL

SEE YOUR MURPHY DIESEL DEALER, TODAY—

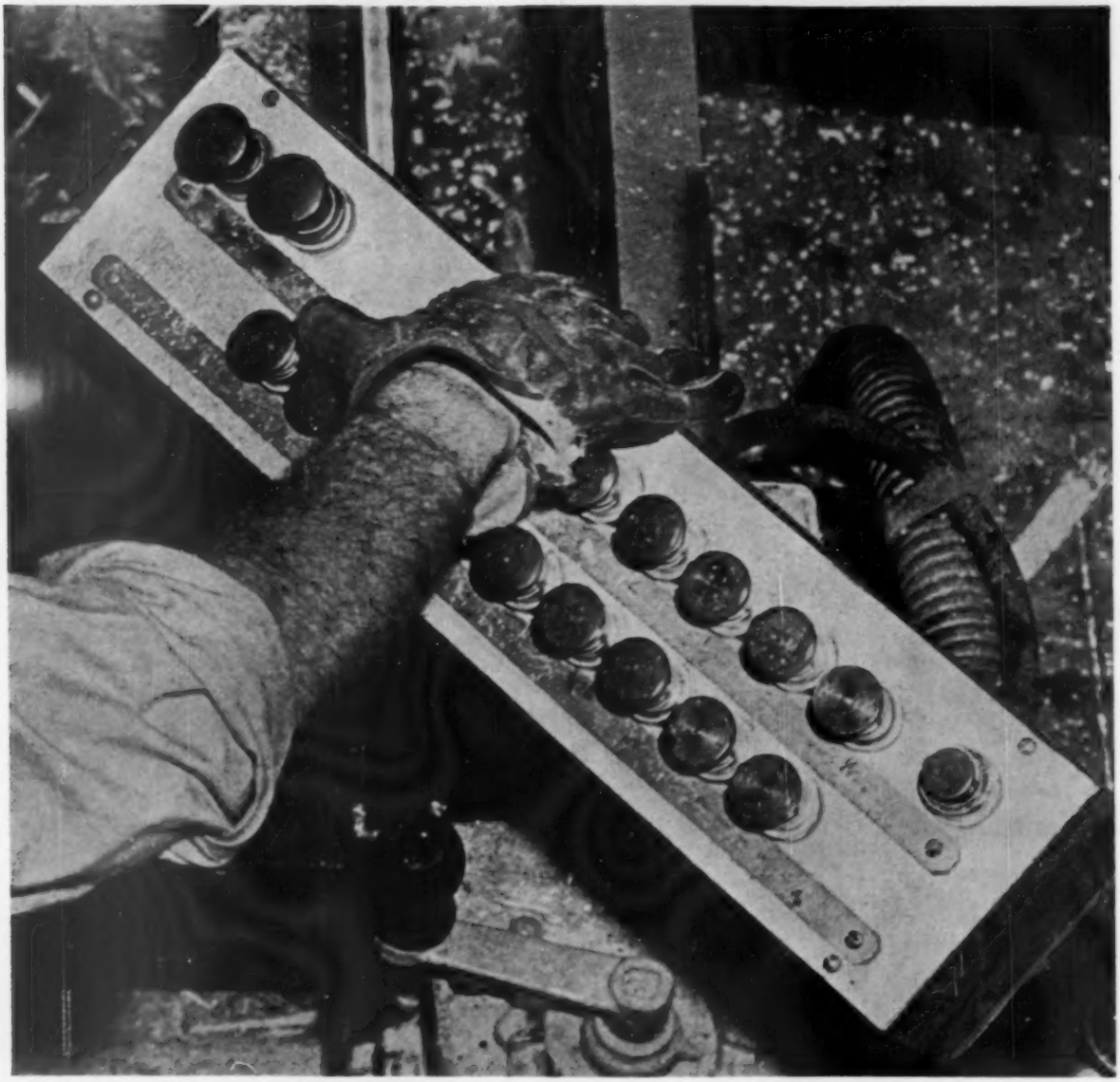
MURPHY DIESEL COMPANY

5351 W. Burnham St., Milwaukee, Wisconsin

SALES . . . PARTS . . . SERVICE
Throughout the Nation

427-L

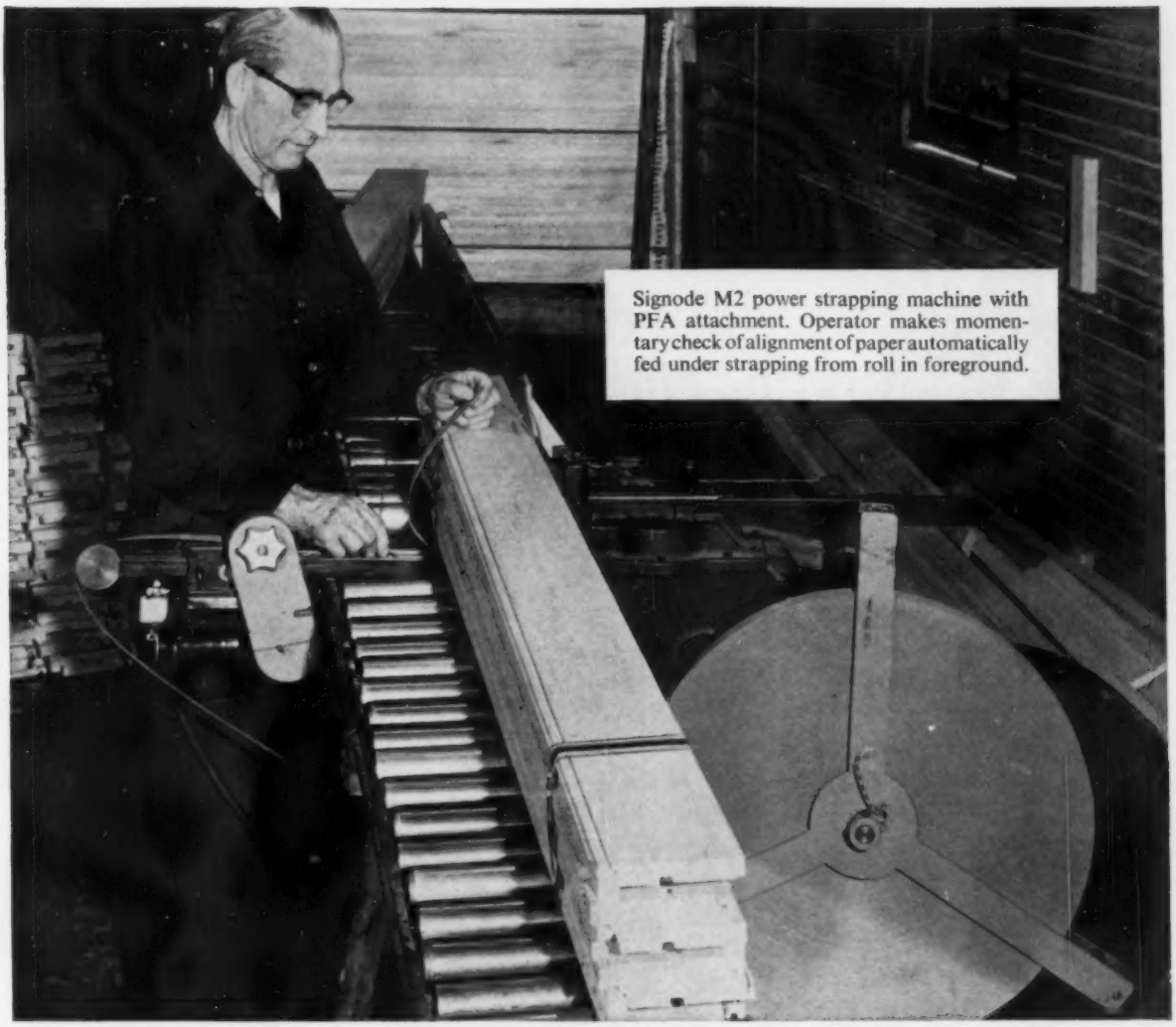
PORTLAND IRON WORKS



PUSH-BUTTON CONTROLS

Where do you want to speed production and cut costs? Call PORTLAND IRON WORKS for the latest developments in push-button operation for line bars, trimmers, edgers, sorters, tray systems and log handling. Our engineers work miracles. Call CApitol 7-1107.

CUT COSTLY CUTTING HABITS



Signode M2 power strapping machine with PFA attachment. Operator makes momentary check of alignment of paper automatically fed under strapping from roll in foreground.

Millwork bundles are steel strapped and paper-protected new Signode way

KD sash and frames are steel strapped with edges paper-protected at an average production rate of 1,000 to 1,100 bundles per day. Strapping is done on a Signode M2 power strapping machine with paper feeder attachment. The chipboard paper is automatically fed under the strap. It permits a tight, secure bundle, yet eliminates the slight edge damage done by strap without paper ...produces an economical "perfect" bundle not obtainable any other way.

Cost of the 1¼" x .032" chipboard strip is 0.09 cents per foot—about ¼ cent per bundle. Strapping with the chipboard is about 15% slower than without it...a small premium to pay for almost absolute protection to edges—and resulting customer satisfaction.

The paper feeder attachment can be added to any Signode Model M2 Power Strapping Machine not equipped with an enclosed chute...affords protection to edges and surface finishes of millwork and other wood and metal products and parts.

For further information, call the Signode man near you, or write for your free copy of Leaflet SPD 182.

SIGNODE

First in steel strapping

SIGNODE STEEL STRAPPING CO.

2616 N. Western Avenue, Chicago 47, Illinois

Los Angeles 1, 659 East Gage Ave. • Pittsburg, Calif., Loveridge Road • Eugene, 2472 Willamette
Portland 10, 3326 N.W. 35th Ave. • Seattle 4, 1750 Occidental Ave. • Spokane, 617 Paulsen Bldg.
Canadian Steel Strapping Co., Ltd., Vancouver, B.C.

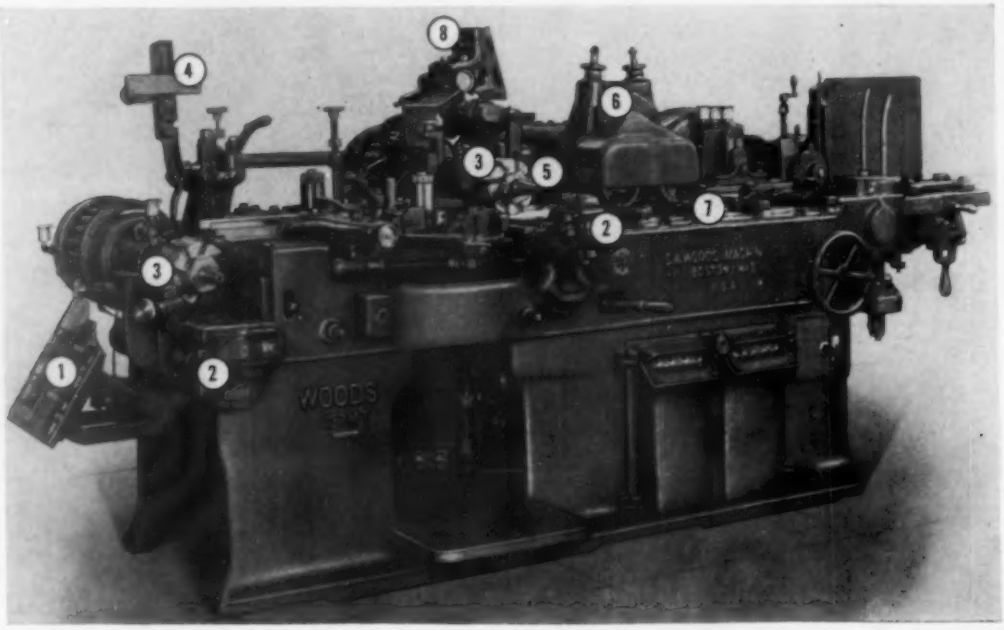
Serving the Industry Since 1852

WOODS® 137 MOULDER

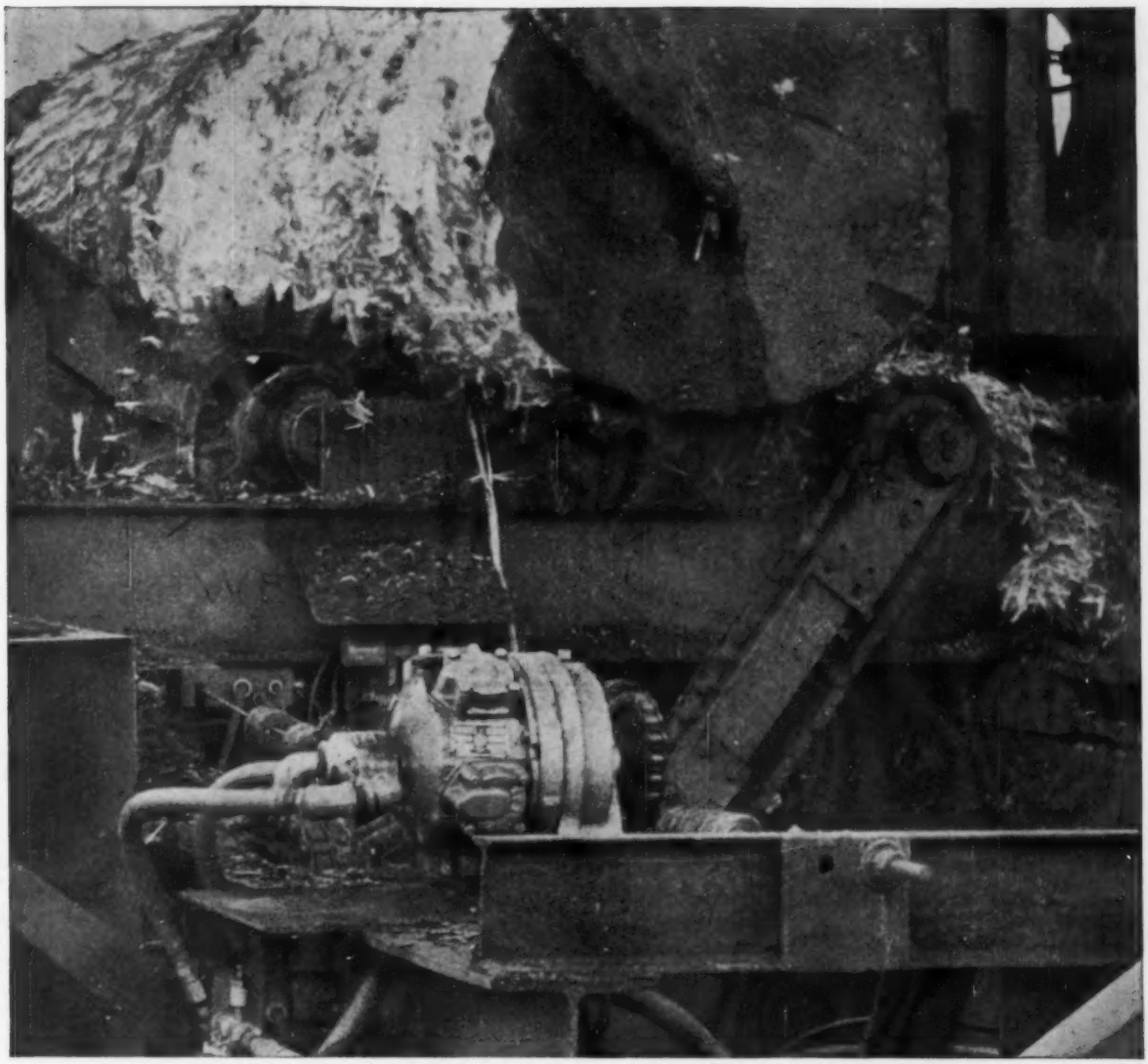
the *ONLY* Moulder with "*Finger Tip*" Accessibility

1. Feed-out table dropped giving full accessibility for knife set-up and jointing. Table is furnished with counter balance spring.
2. Outboard bearings removed from spindles and dropped into position to allow easy replacement of top and bottom spindles.
3. Showing complete cutter heads assembled on tapered spindles.
4. Pressure bar with hold down shoe swung up out of position leaving entire top of working area clear for set up.
5. Spindle with tapered end for positive self-centering and mounting of Outboard bearing.
6. Direct roll pressure provided by individual adjustable calibrated springs.
7. Individual spring yielding adjustable front spring guides.
8. Top head chip breaker with adjustable sectional shoes and equipped with yielding spring fingers. Swung up out of position for full accessibility of top head.

Simple fool proof hold downs, guides and adjustments conveniently located for operator.



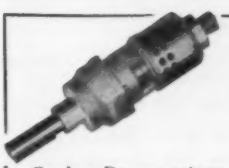
S. A. WOODS MACHINE CO.®
27 DAMRELL-STREET
BOSTON 27, MASS.



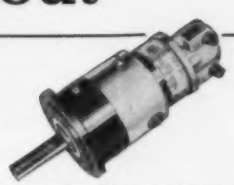
Gardner-Denver load-lugging 5-cylinder radial air motor—reversible and nonreversible models in size range from 1.5 to 16 hp.

These tough, little mill motors won't spark, can't burn out

Gardner-Denver air motors provide safe, sure power for many mill jobs. They don't spark, can't burn out even when run to a stall. And the only thing between motor and power source is air—no mechanical connections. They help lower insurance rates, too. Write for bulletin.



Gardner-Denver rotary vane air motor—for power requirements from ⅛ to 1.5 hp.



Gardner-Denver power-packed axial piston air motor—size range to 2.7 hp.

EQUIPMENT TODAY FOR THE CHALLENGE OF TOMORROW

GARDNER-DENVER

Gardner-Denver Company, Quincy, Illinois

In Canada: Gardner-Denver Company (Canada), Ltd., 14 Curity Avenue, Toronto 16, Ontario

Branch Offices: Seattle, Vancouver, San Francisco, Los Angeles, Salt Lake City, Denver, and Wallace, Idaho

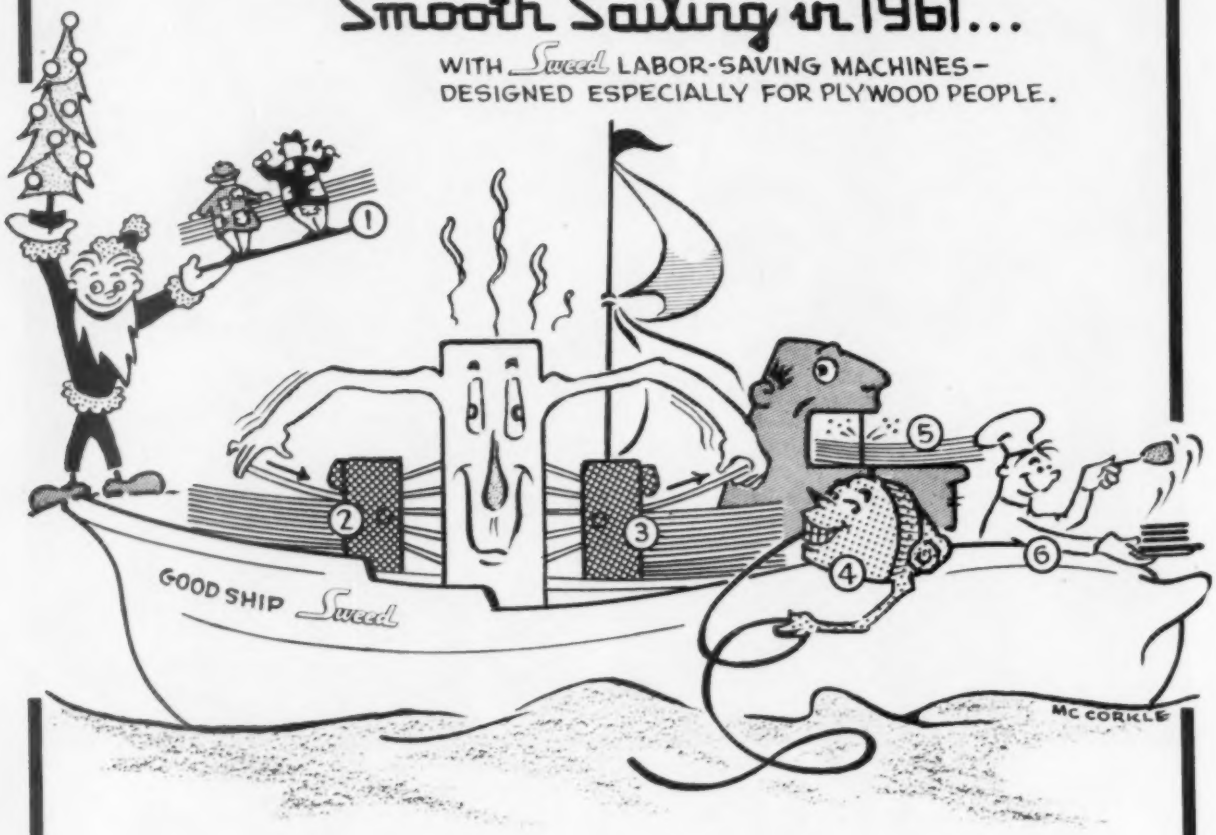
JEDDELOH BROS. GOLD HILL, OREGON • Phone ULrick 5-1316

Sweed MILLS, INC.

WELCOME ABOARD

Smooth Sailing in 1961...

WITH Sweed LABOR-SAVING MACHINES—
DESIGNED ESPECIALLY FOR PLYWOOD PEOPLE.



● THIS CARGO CONSISTS OF . . .

1—Sweed PATCH LINE
. . . built to your plant conditions

2—Sweed SPEED-FEED
. . . the feeder adaptable to any kiln dryer

3—Sweed DRY KILN UNLOADER
. . . handles veneer from kiln dryer

4—Sweed SCRAP CHOPPER
. . . for cutting strap or wire into small pieces

5—Sweed VEN-COR
. . . for cutting veneer core stock

6—Sweed STACK TURNER
. . . one-shot turning of plywood panels

CALL Sweed

Sales Representative

GOLD HILL, OREGON • Phone ULrick 5-1145 PORTLAND, OREGON • OLive 4-1906

National MACHINERY SALES INC.

PAYLOGGER®

Fast, safe handling of logs and lumber

The "PAYLOGGER" line gives you the exclusive combination of genuine Drott hydraulic grapples on rubber tire mounting — 4-wheel-drive units with the same mobility and proven performance as the well-known "PAYLOADER" tractor-shovels.

Built throughout for hard service, "PAYLOGGER" units feature powerful, reliable hydraulic systems of the closed, pressure-controlled type . . . better balance and stability due to low-and-close load-carry position. Power-transfer differentials, power-shift transmission, torque-converter drive, planetary axles, power-steer and 4-wheel power brakes are some of the important mechanical details that make "PAYLOGGER" units outstanding in tractive ability, ease of operation and dependability on any terrain.

Two sizes of "PAYLOGGER" units are available, with Operating Capacities of 12,000 and 17,000 lbs. Your Hough Distributor with his complete service and parts departments, backed up by factory service personnel is another "PAYLOGGER" advantage. See him today.

HOUGH®

THE FRANK G. HOUGH CO.
LIBERTYVILLE, ILLINOIS
SUBSIDIARY — INTERNATIONAL HARVESTER COMPANY

THE FRANK G. HOUGH CO. 11-D-1
884 Sunnyside Ave., Libertyville, Ill.

Send more information on "PAYLOGGER" tractors with DROTT patented grapples to

Name.....

Title.....

Company.....

Street.....

City.....State.....

IMPORTANT ANNOUNCEMENT!

From the day you buy it, you can bring your Cummins-Diesel White or Autocar home to WHITE for "One-Stop" Service

All WHITE Superservice Shops throughout the United States and Canada are fully approved by CUMMINS ENGINE COMPANY to perform initial inspection and ALL warranty work! (White has been doing after-warranty work for 5 years.)

This all-inclusive service is a big step forward by White and of tremendous advantage to all White and Autocar owners. IT BECOMES EFFECTIVE IMMEDIATELY. We suggest that you see your nearest White branch or distributor now—for full details. Let us prove that today, more than ever, "White takes care of its own"—promptly, courteously, efficiently.

WORLD LEADER IN HEAVY DUTY TRUCKS

THE WHITE MOTOR COMPANY
Cleveland 1, Ohio

WHITE

BUILDS GOOD WILL BY THE BUNDLE!

Acme Idea Man Arnold Flack introduced Idea No. U1-21 to B. C. Spruce Sales, Ltd., Prince George, B. C.

Unloading a box car of lumber used to cost customers 54 manhours. Now it's done in 30 minutes! Customers, naturally, are pleased. The method: bundling and bracing lumber with Acme Steel Strapping.

And B. C. Spruce Sales, Ltd. cuts *their* loading time from 3 hours to 30 minutes by bundling shipments. This method not only saves work at both ends of the line, but prevents shuffling and breakage in transit and during handling.

Your Acme Idea Man can show you many such methods for cutting handling costs and cementing good will. Call him or clip the coupon.

ACME STEEL

IDEA LEADER IN STRAPPING

ACME STEEL COMPANY
Acme Steel Products Division
Dept. LBS-120
135th & Perry Ave.
Chicago 27, Ill.

Please send me Idea No. U1-21 and examples of how major companies in my field use Acme Steel Strapping.

*Name*_____

*Title*_____

*Firm*_____

*Address*_____

*City*_____ *Zone*____ *State*____

DIEHL
SINGLE-OPENING 50x100" PRESS

Modular type contruction

Multiple hydraulic cylinder arrangement

From one to 30 openings

Heavy bolster platens

3" thermal platens of built-up construction

Gear and rack equalizers

Standard Diehl-designed pump and control units

Console-type pumping unit

Steam, oil or water heating systems from room temp. to 600° F.

Shuttle, batch or conveyor type loaders

50 psi to 1000 psi unit area pressures

Wide range of special equipment available

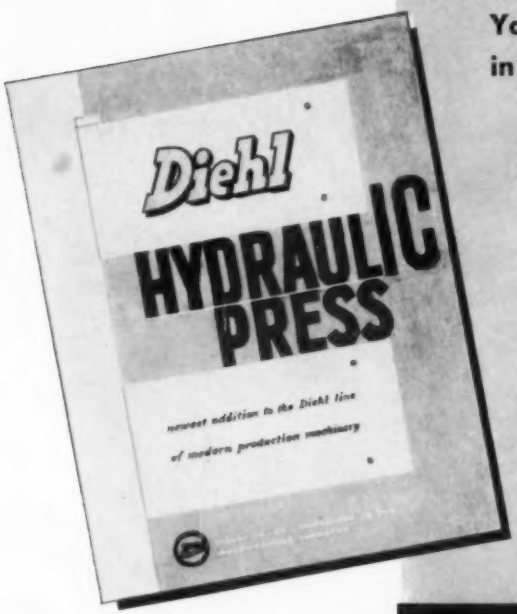
Who..... builds the newest and most advanced hydraulic press on the market today?

What..... are the features that make this new press of special interest to your plant operation?

How..... can this new and complete line be adapted to your specific needs?

Why..... is this unit destined to set new production records for speed, precision and economy?

You'll find the answers to these questions in this new Diehl bulletin



Mail Coupon TODAY!

Diehl

THE G. M. DIEHL MACHINE WORKS, INC.
Wabash, Indiana

Please send folder giving complete details about the new Diehl Hydraulic Press to:

Name_____

Company_____

Address_____

City_____ State_____

...exclusive CARY-LIFT feature eliminates costly, old-fashioned loading and unloading by hand

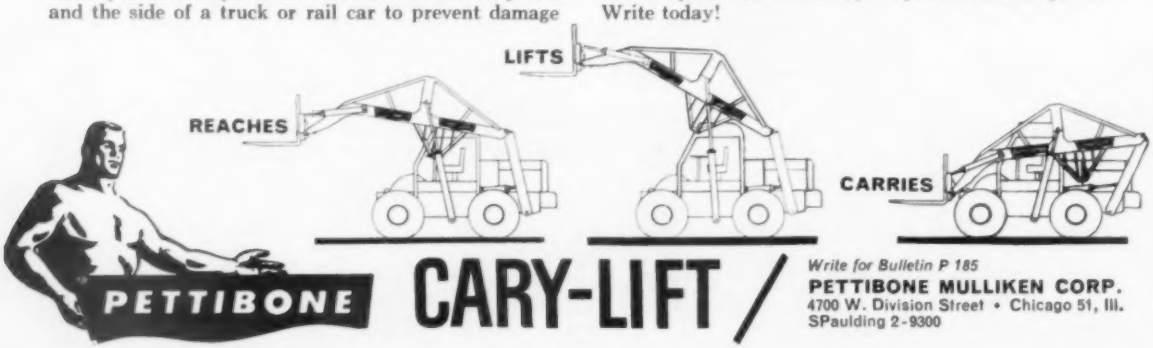
Cary-Lift not only performs the usual loader functions of carrying and lifting loads, but adds the *exclusive* BIG REACH — the patented 4 ft. hydraulic *forward reach* at *all* heights! It picks the load off the ground, carries it, then positions it high up and over on piles — no hands! And Cary-Lift comes in models that will handle capacities from 6000 to 60,000 lbs., depending on your requirements.

In the kilns, the high forward reach permits stacking to capacity in fast time . . . with *no hand labor.* Rail cars and trucks can be loaded from one side—a great time-saving feature. Also, the long forward reach provides ample clearance between the Cary-Lift and the side of a truck or rail car to prevent damage to equipment, while adding safety for the operator.

Powerful 4 wheel drive and high flotation tires guarantee continuous operation the year around, regardless of terrain or weather.

Cary-Lift does so many jobs around the yard that it is recognized as the most versatile all-purpose loader in the lumbering industry today. Owners find that *one* Cary-Lift *easily replaces* as many as *three* special-purpose machines—a big saving in equipment investment!

It will pay you to ask experienced Pettibone engineers to make a survey of your operation. They will show you how Cary-Lift can increase your production and profits. Write today!



CARY-LIFT

Write for Bulletin P 185

PETTIBONE MULLIKEN CORP.
4700 W. Division Street • Chicago 51, Ill.
SPaulding 2-9300

Glidden mill applied finishes help speed production, upgrade profits

Three new Glidden products—hardboard sealer, particle board filler, siding primer—supply fast production line application never before possible.

Glidden Sealer imparts a protective, translucent, semi-translucent or transparent coating in a variety of colors to the hardboard surface. The sealer completely fills the pores of the board; is easy to apply. Easy to clean-up, too, with minimum clogging of the buffing machines.

Specially formulated to fill voids and fissures in preparation for painting, printing or lamination of veneers.

Glidden's #78 Primer, specifically formulated for mill application, has excellent durability over cedar, redwood, pine, hardboard, fir plywood and Crezon paper—tests indicate #78 Primer will withstand exterior exposure up to one year without a top coat. Excellent performance under enamels, oil and latex house paints.

ATTACH THIS COUPON TO YOUR COMPANY LETTERHEAD AND MAIL TO:

The Glidden Company, Industrial Paint Division, Dept. LM-1260
900 Union Commerce Building • Cleveland 14, Ohio

Please send me FREE SPECIFICATION FOLDER ON

- ☐ HARDBOARD SEALER
- ☐ PARTICLE BOARD FILLER
- ☐ SIDING PRIMER

Name_____

Firm_____

Address_____

City_____ State_____

Efficient Material Flow Built into High

Straight line production flow through the entire plant was one of the most important layout considerations in the new $8\frac{1}{2}$ million Georgia-Pacific plywood plant at Springfield, Ore., according to Arthur P. West, resident manager.

The plant is geared to produce 12 million square feet of plywood monthly. At present, it is operating on an 8-million-square-foot-per-month basis staffed with two-shift 225-man crew.

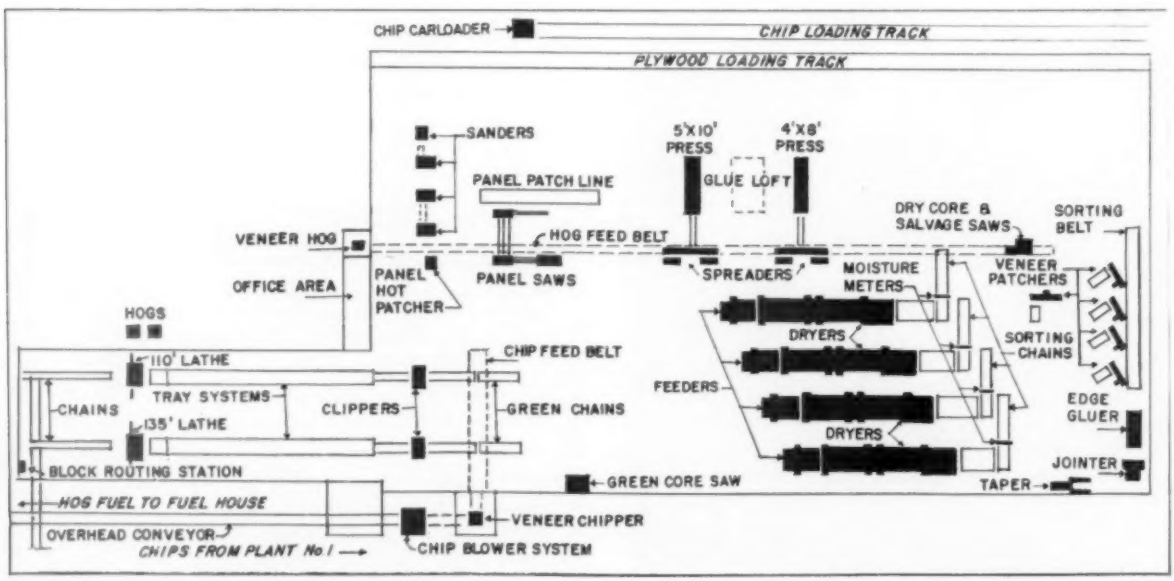
The new plant adjoins an existing Georgia-Pacific mill with the same production. The two plants' operations are somewhat integrated. They trade veneer back and forth. The same barker and decksaw installation serves both plywood plants. Both plants use the same pulp chip handling facilities.

According to Mr. West, nearly all Georgia-Pacific's key plywood personnel were involved in planning the new operation. C. W. Peters, Springfield plant engineer, coordinated the engineering.

Staggered dryer system provides a somewhat unique feature to the plant. Both veneer and panel patching work is semi-automated.

Mr. West says of the panel patch line: "The panels are fed face down to the turner, giving the router an opportunity to see the back. If it is a shop-grade panel, he can save work on face patching."

Regarding the veneer patch line, he says, "anything patchable goes to the Raimanns. This gives us an opportunity to upgrade to the ultimate with sorting on the offbear side." Each patcher operator determines the best grade he can obtain from a sheet, consistent with good production.



Production Ply Plant

Peeler cores from the operation are sold and picked up by truck. They are sawn for studs.

A conveyor takes the cores from the lathe deck to a truck loading station outside the building. They are also decked on chains in the mill yard with another transfer system taking them to the same truck loading point.

The 8-foot lathe has three trays, but the system is easily expandable to six trays. Another expandable feature of the plant is the 4x8-foot 24-opening press which can be enlarged to a 30-opening press.

Plant produces straight plywood with no special faces or overlays in its production. About 70% is interior grade and 30% exterior.

Phillip R. Grayson is plant superintendent.

Coe dryers are placed directly behind the green veneer sorting chains and are installed in a staggered line to allow for a separate 35-foot sorting chain offbearing from each dryer. Each dryer and sorting chain may operate at its own pace without hampering the other dryer lines.

This feature gives a great deal of versatility in dryer operation and sorting.

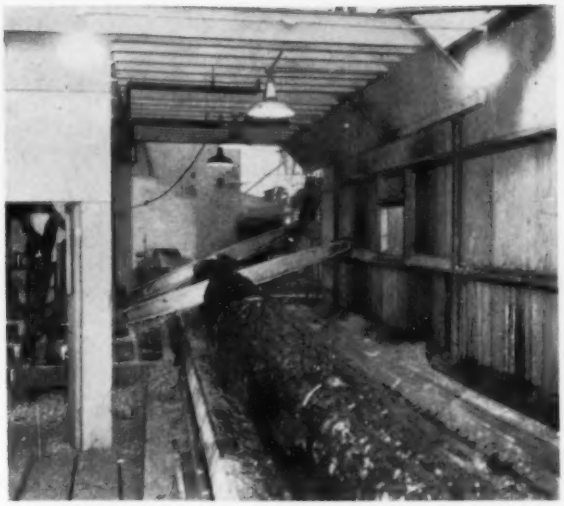
All the dryers are 5-line, equipped with Sweed veneer handling systems serving Coe feeders. The shortest is a 14-section unit which dries narrow heart and strip. An 18-section unit dries all heavy sap and the two 16-section installations dry the balance of the veneer.

Trussfab building has a 203,000 square foot floor area and is built with 160-foot clear-span bolted wooden trusses. The main building is 560x320 feet in size with 820 feet from the far end of the lathe deck to the back wall of the layup department.

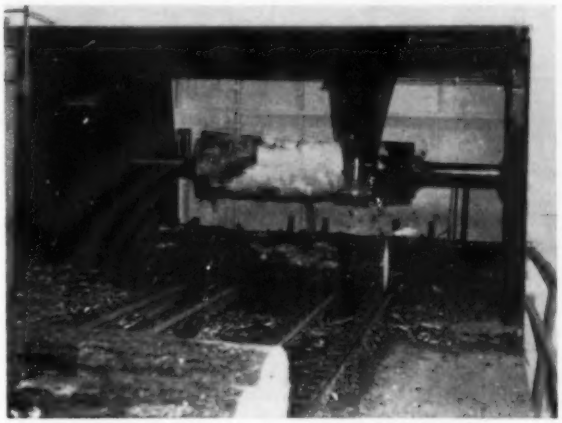
The walls are sheathed with plugged C ½-inch plywood, the roof with ¾-inch plugged C sheathing. Light green colored walls coupled with 380 Benjamin fluorescent lighting fixtures operating on 270 volts combine to make the plant well-lighted for maximum efficiency.

All machinery is painted a uniform dark green for high visibility—contrasting with the walls—for safety.

Plant construction was well-planned and coordinated with most components pre-fabricated and later installed in place. First ground was broken in September 1959, with initial lathe production in June 1960, followed by first panel layup the following month.



1 L-M deck saws buck logs into blocks and sawlogs for most profitable end use in integrated operation. Bucked blocks and logs offbear to transfer chain to barker in background. Unit is adjacent to first plywood plant.

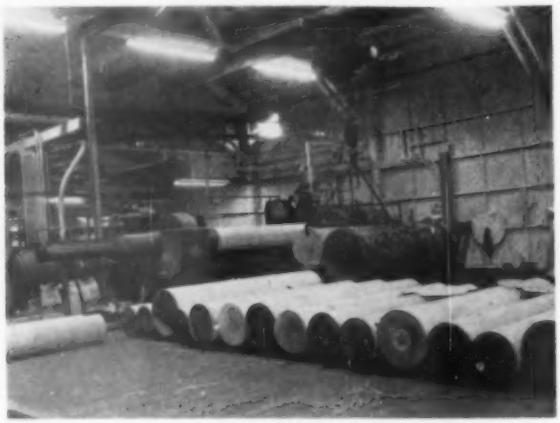


2 Globe barker removes bark from peeler blocks after which they are kicked back into pond to be routed to either of the plywood plants.

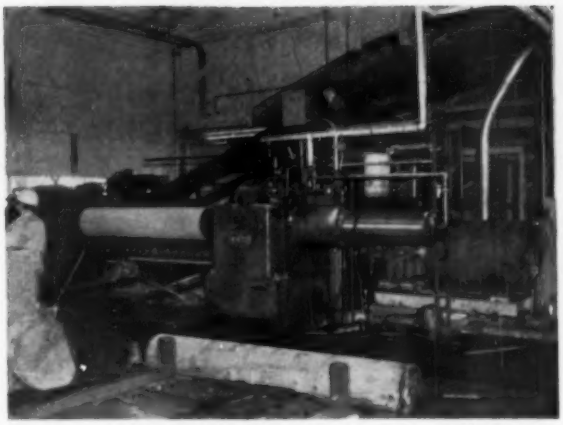
3 Bucking and barking are performed at central station for both plywood plants. Deck saws are at right, transfer to barker at left. Unit operates two shifts.

(Continued on next page)

HIGH PRODUCTION PLY PLANT *(continued)*



4 Coe 135-inch lathe has 80-inch swing. It takes higher grade blocks. Lathe is charged by P&H overhead crane. A Portland Iron Works floor-type charger will be added. Unit has C&C automatic tippie control.



5 Coe 110-inch lathe has 72-inch swing. Blocks are decked on railroad rails on lathe deck. Microswitches control breaker on tipple and tray operation. Cores are sold for sawing into studs. Broken cores are hogged for fuel.

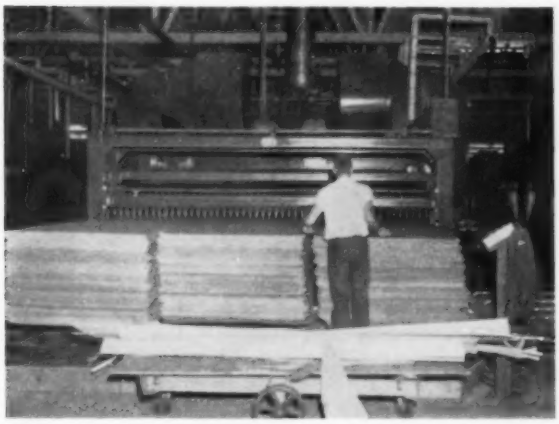
8 Clark butane-fueled lift truck, one of seven in the plant, takes load from green chain. 42-foot sorting chain serves each of two double-decked clippers on the 10-foot side. Another 42-foot unit serves the 8-foot clipper.

9 Sweed band core saw cuts core stock from green veneer fishtails. It is located directly behind veneer sorting chain. Wheeler band core saw, in dry veneer upgrading department, saws dry veneer for core stock.

12 Offbear side of the Coe dryers shows staggered arrangement of the four dryers. Each has separate Laucks Sentry continuous moisture meter and 35-foot sorting chain. The staggered arrangement allows individual sorting chains without occupying excess room on the plant floor.

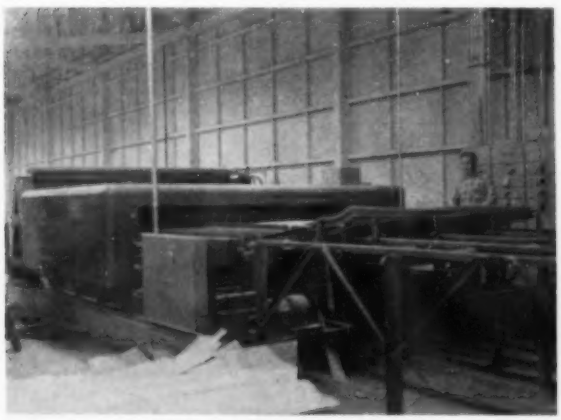
6 This view of trays show three 165-foot units on 8-foot system, left, and 6 units on 10-foot system. Trays are Western Machinery units. Controls & Communications tray switching is in aisle between trays.

7 Rok-It 10-foot clippers serve 10-foot lathe side in double deck installation. Single clipper serves 8-foot lathe tray system. Both units have Controls & Communications electronic clipper controls.

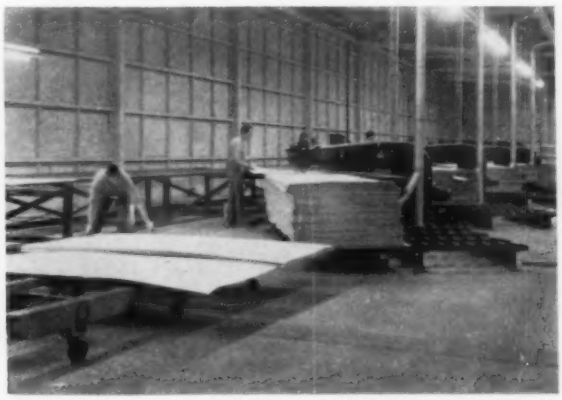


10 Core feeder, served by Sweed veneer handling system, feeds the Coe 5-line, 16-section dryer. All dryers in the plant are 5-line. A 14-section unit is located at the right, a 16-section unit to the left.

11 Feed end of the 14-section dryer, looking down toward sorting chains, is shown in this view of the plant. The steam piping for the dryers was handled by Hennen-Vos-Willis, Eugene, Ore.

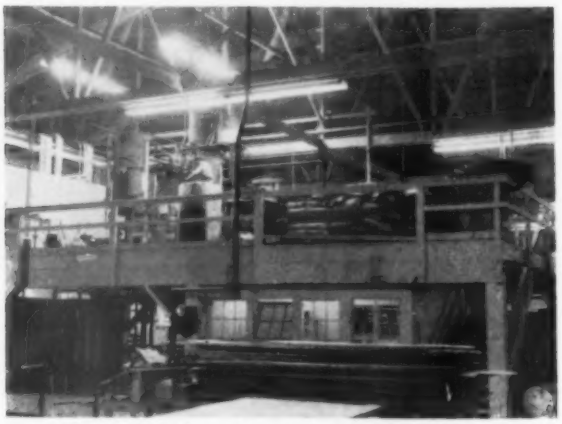


13 Prentice edge gluer with Victor clipper is served by Globe rotary clamp jointer in 3-man operation. This is part of veneer processing area, which also has a Dennis taper, Durand saw, Wheeler core saw and patch line.

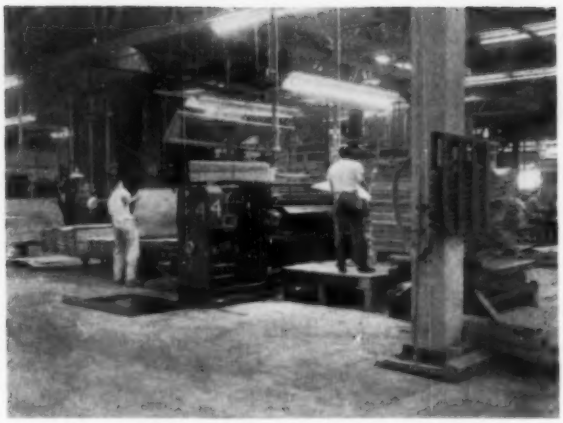


14 Veneer patch line has four Raimann patchers offbearing to single sorting belt. Patchers are angled for easy lift truck serving. Patched sheets slide across length of metal tubing onto sorting chain.

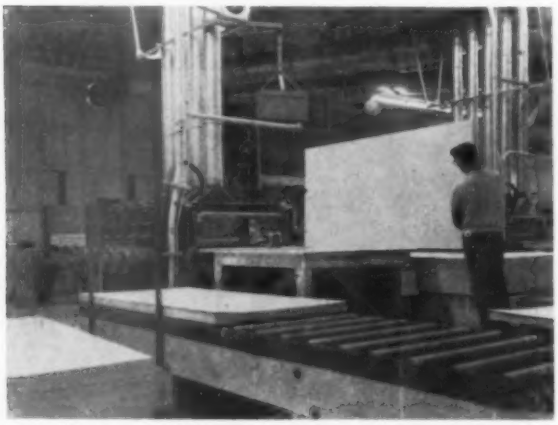
(Continued on next page)



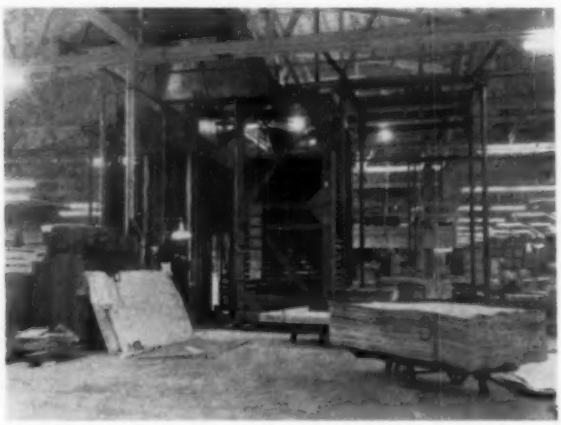
15 Glue loft is in an elevated position above the floor, between the presses. Reichhold and Georgia-Pacific liquid components are used. The installation includes two Fluckinger mixers.



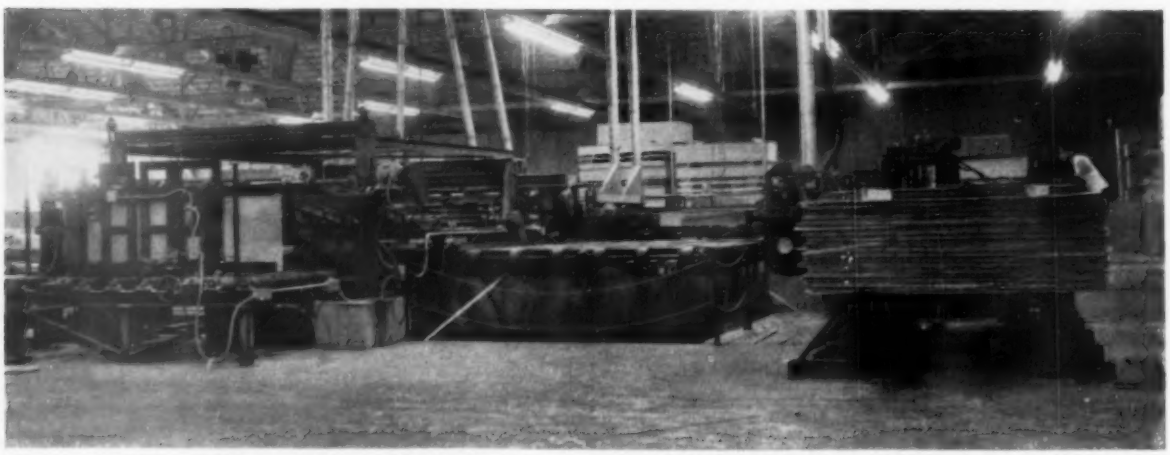
16 Globe glue spreader is one of four such units in the plant. The 5x10-foot Baldwin press is in left background. The 4x8 foot unit is at right. A Globe scissor-lift works on the infeed side of the spreader.



19 Yates American sander is equipped with Cardwell feeder. It is one of four Yates sanders in line. Double deck sanders include H-268, S-28 and S-800. A single deck S-53 resands patched stock.

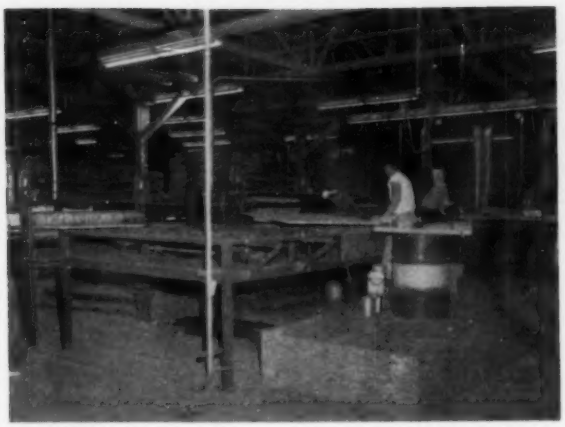


20 Baldwin 24-open, 5x10-foot hot press has Oilgear hydraulic unit, shown in foreground. The American elevator and charger are at right. Glue loft, at right, is located between the twin press installation.

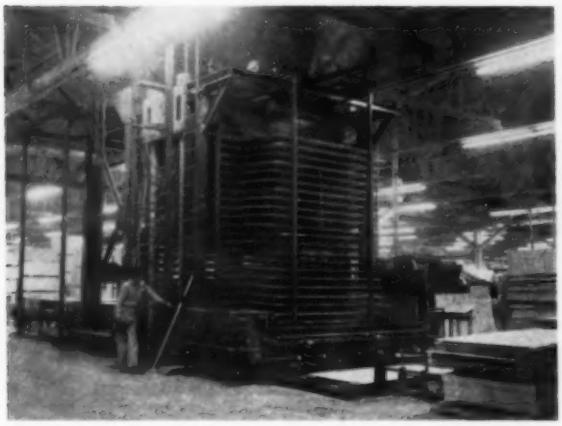


22 Panel saws are Mereen-Johnson installation. One man feeds the line. The chain at right takes unsawn loads. Panels go to skinner saw at right, then to transfer to cutoff saw and automatic stacker.

17 Panel patching line by C. F. Machinery has automatic feeder to turner, then to panel router for sawing on jump-turntable. Panels then pass under vacuum at left for sawdust removal.



18 Magazine at left in panel patch line holds 18 inches of panels. They feed automatically from bottom through feed rolls to jump belt, actuated by patcher to feed panels singly to his station. He patches, feeds through pinch rolls to stacker.



21 American receiver on the Baldwin 24-open hot press is equipped with an elevator for automatic offbearing. Panels discharging from the press are sawn on a 1-man line adjacent to the presses.

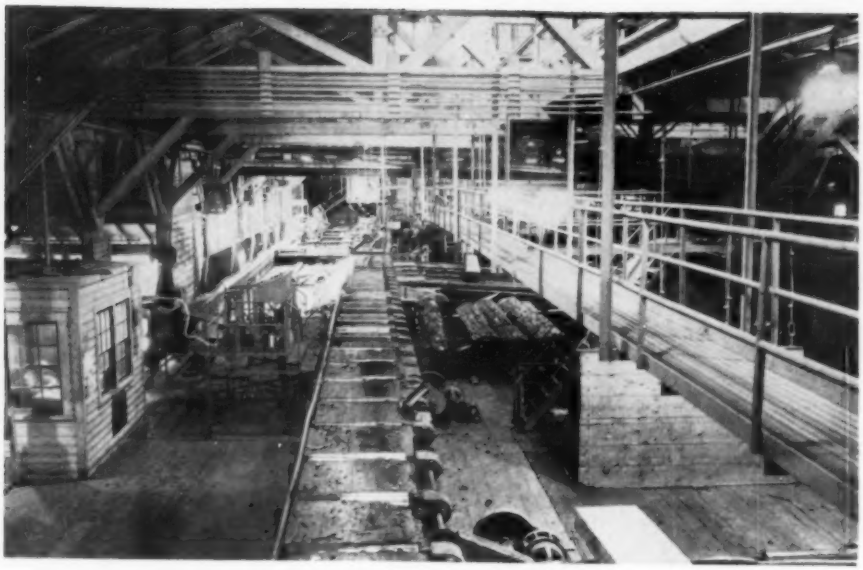
EQUIPMENT

Coe 8 and 10-foot lathes with **Westinghouse** drive; **Rex** A-132 chain on deck; **P&H** overhead cranes; **Diamond** and **Peninsula** hogs; **Controls & Communications** tray controls; **MicroSwitches** on trays; **Rok-It** clippers with **Controls & Communications** controls; **Summer** veneer chipper, with **Rens** metal detector; **Rader** high pressure blower system for chips; **Rader** cross-car carloader; **Portland Iron Works** car puller; **American Sheet Metal Works** low pressure blower system; **Sweed** veneer handling for **Coe** feeders on dryers; **Coe** dryers; **Laucks Sentry** moisture meters; **Globe** rotary clamp jointer; **Prentice** edge gluer with **Victor** clipper; **Dennis** taper; **Wheeler** and **Sweed** core saws; five **Raimann** patchers; **Durand** salvage saw; **Baldwin** 8- and 10-foot presses; **American** chargers and receivers; **Mereen-Johnson** panel saws fed by **Stetson-Ross** tilting hoist; **C-F** panel patch line; **Globe** panel hot patcher; four **Globe** spreaders; two **Fluckinger** glue mixers; four **Yates-American** sanders with **Cardwell** feeders; seven **Clark** lift trucks; **Westinghouse** compressors; **General Electric** motors (total 5,000 hp.) switchgear and substations; **Benjamin** fluorescent lighting fixtures; **Viking** sprinkling; **L-M** decksaws; **Globe** barker.

Contractors and suppliers; building, **Trussfab, Inc.**, Portland, Ore.; footings, floor and machine erections, H. Shields Construction Co., Eugene, Ore.; roof, **Ira O. Williams**, Eugene, Ore.; steel work including log hauls, log handling and conveyors, **Stevens Steel Fabrication Co.**, Salem, Ore., **Eugene Truck & Machine Co.**, Eugene, Ore., and Drain Machinery & Supply Co., Drain, Ore.; Cochran high pressure condensate system by **C. C. Moore & Co.**, Portland, Ore.; presses supplied through **Coe Manufacturing Co.**, Portland, Ore.

23 Shipping is mostly by rail. Inside siding handles nine rail cars. Chips from both plants are moved by Rader pneumatic system to the cross car carloader, at left. Sumner veneer chipper has a Rens metal detector. Each plant produces 45 units of chips daily.

24 Dual use conveyor brings chips from older plywood plant to screening system at new plant via top section. Returning belt at bottom takes fuel from new plant to fuel house. Steam pipes and American Sheet Metal Works blower move dust to fuel house through the 600-foot long overhead enclosed tunnel. American Sheet Metal installed over a mile of pipe on this job. ■■



Modernized mill includes extensive steel work. Note steel overhead catwalk.

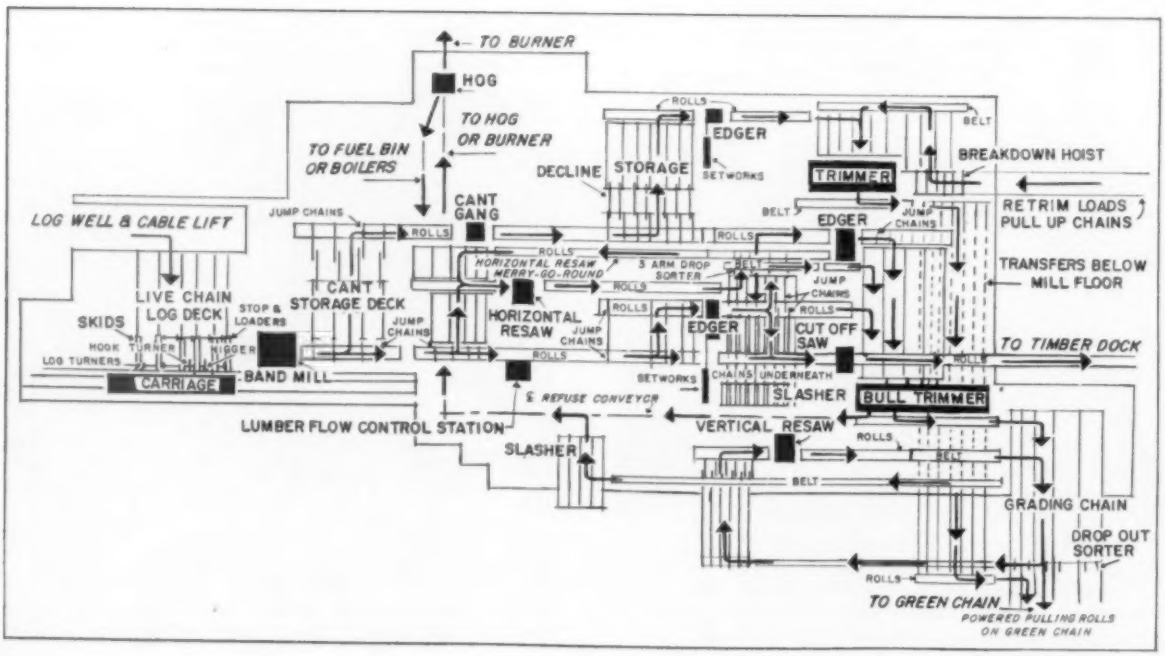
Large West Coast Production Mill Regeared to Handle Changed Timber Conditions

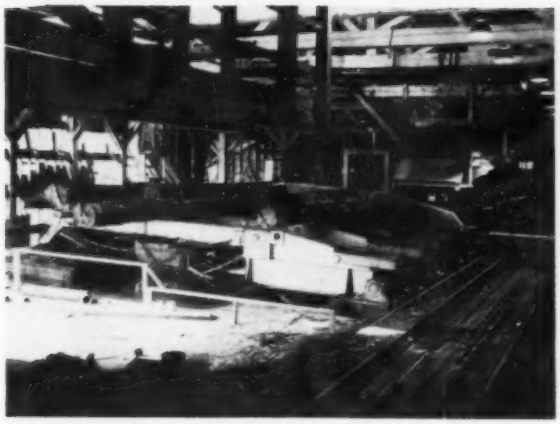
The old-time, bulky, high-manpower West Coast fir mills are rapidly passing. Profitable operation of these mills depended upon a supply of prime large logs.

Supplanting them have been compact, automated operations geared to the smaller logs developed in today's harvest and to the maximum utilization standards required for efficient continuing use of the forest resource.

Edward Hines Lumber Co., Westfir, Ore., was one of the older type high production mills. It has now completed its changeover to handle today's forest crop.

When the plant was established in 1926, the huge, old-growth logs were





All-steel log deck was installed by M. A. Ward Construction Co., Eugene, Ore. Ward also fabricated and installed the deck skids, nose irons and log well skids. Deck serves Prescott 4-block carriage.

Main breakdown unit is Prescott 10-foot band mill. It has Prescott 4-block, 84-inch opening carriage and I. W. Johnson drive powered by 155-psi of steam. Mill accepts logs up to 40 feet. Average diameter is 19 inches.

being logged within splashing distance of the millpond. Today, most of the timber supply comes from miles away —from high elevations in the Cascade mountains where slower growth produces smaller logs.

Old production records show that the average log sawed in 1926 scaled 600 board feet. This figure has been halved for today's input, although the mill still receives a number of large old-growth logs and will for many years to come.

The Hines mill operated as a green fir mill until dry kilns were installed in 1948. The next change was the plywood plant which started single-shift operation in 1952. Then, in 1954, a second shift was added in the ply plant, and the second shift in the sawmill was dropped.

The mill had been cutting 320,000 board feet daily on two shifts. The present cut, after revamping, is 190,000 board feet in a single shift.

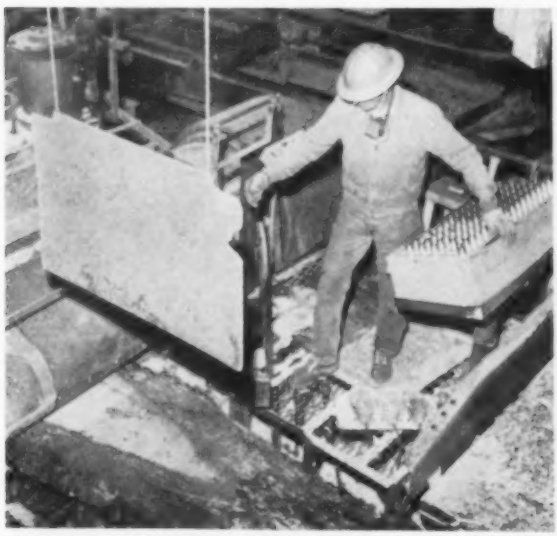
General manager Howard R. Lemons says that efficient shrinking of the operation down to the one-shift basis was a prime consideration in the revamping planning, in addition to the firm's trend toward handling smaller logs.

Half the firm's fir logs are now peeled. Normally, the plywood plant consumes all peeler and peelable grades and some of the better No. 2 grade sawlogs. Log production has remained about the same throughout the whole program, with the cutback in the sawmill made up in the plywood plant. The combined operation requires about 65 million board feet of logs annually.

The sawmill now operates with a crew of 130 men. This includes everyone from the pond on through shipping and the shop, power house and watchman. A crew of 185 men was required before the revamping.

Modernizing was started in 1958, after several years of planning, and was completed in June, 1960, with the final installation of an all-steel live deck on the head end.

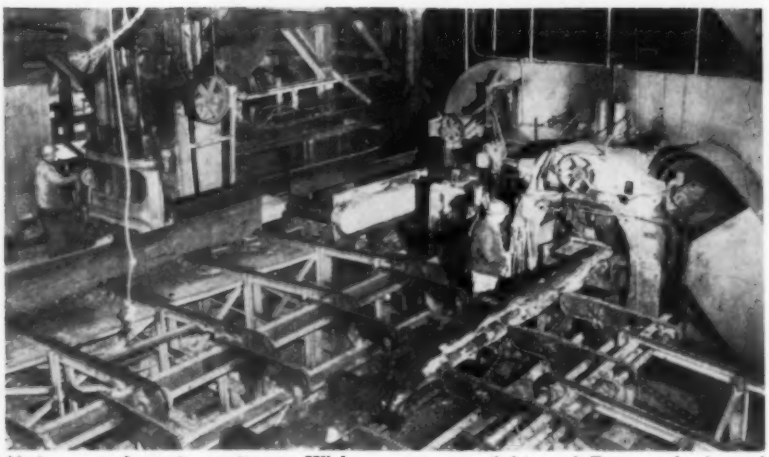
(Continued on next page)



Bull edger is Gerlinger 14x72-inch unit with Ward automatic setworks. Edgerman punches button to set saws. Unit takes material from main offbear rollcase from headrig, offbears to trimmer, to drop sorter or cut-off saw.

Drop sorter is one of keys to lumber flow. Resawn piece on flap allows slab to drop under arm to slashers. Middle belt goes to trimmer, left belt to resaw and left transfer to edger. Cut-off saw is at upper right.

Lumber controller directs flow of cants from headrig to further manufacture. Elevated position provides excellent view of mill floor.



Major manufacturing units are Wickes cant gang (left) and Prescott horizontal resaw (right). All slab and some small slabbed logs move to resaw through feed table at right. Machine is also fed from merry-go-round bringing stock back around from the left. Gang handles cants, slabbed logs.

Charles T. Paine, engineer for Hines' Western division, Hood River, Ore., engineered the project. M. A. Ward, Eugene, Ore., contracted the fabrication and equipment erection.

Mr. Lemons says, "We had considered building a small two-shift operation for 34-foot logs, producing about 100,000 board feet a shift, but the time that would be lost in the shutdown for new construction ruled this out. We lost three months of mill production and four months in the planing mill under the plan on which we finally settled.

"We wanted to utilize as much of our existing equipment as possible and maintain much the same lumber flow, holding down our capital investment.

"We already had the resaw and the cant gang. We thought, and it since has proved out, that we could get the production and the overrun that was necessary to make money on the smaller logs. The revamping upped our overrun 4%.

According to Mr. Lemons, the plan was first to get the basic manufacturing plants up to maximum efficiency. This has been completed in the mill, and work is now progressing on the plywood plant and on engineering of residues. The plant is now chipping green veneer residues and burning bark and some veneer. The rest is going for fuel.

The old mill produced heavily toward flooring and stepping on the gang saw. There was a good deal of cant storage ahead of the gang and an overhead crane transferred the cants. This has been replaced by a live storage deck.

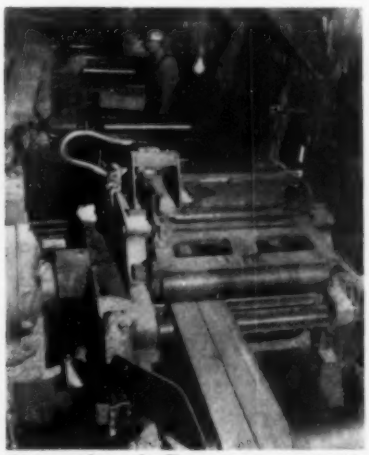
In keeping with changing markets and efficiency, only dimension is now cut on the gang. Flooring and stepping come off the resaw and the plant runs heavy to two-inch industrial clear.

The gang operation was streamlined. A new edger with automatic setworks was added. The gang has its own trimmer and the unit operates with a crew of four: gang sawyer, edgerman, trimmerman and grader.

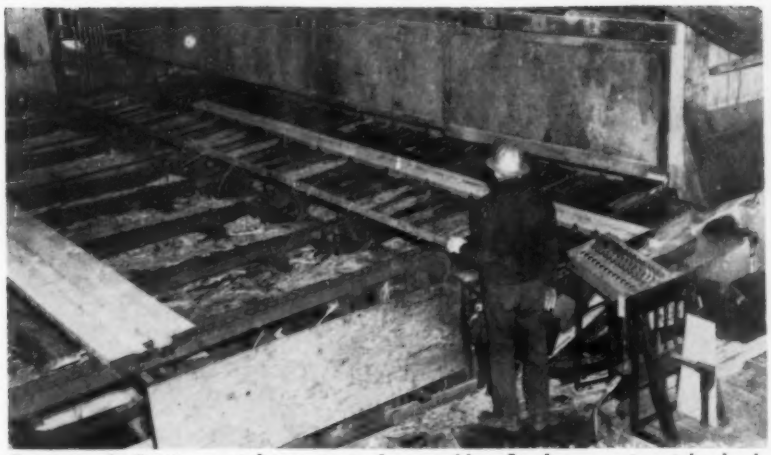
Another new edger was added behind the horizontal resaw. The resaw is served by a merry-go-round.

In operation, cants offbear from the headrig with a "button-pusher" at the lumber flow control directing them to their destination for further manufacture. The control station is an elevated console centrally-located on the offbear rollcase where the operator has a view of the mill floor.

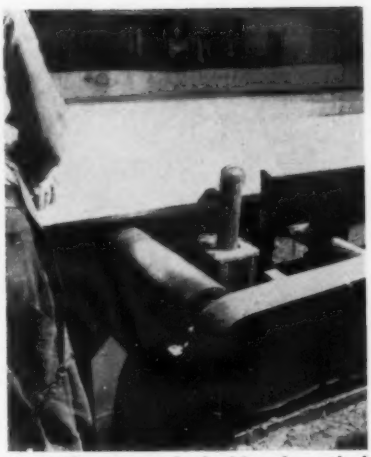
Cant from resaw is transferred over to Schurman 42-inch edger. Output of bull edger is deposited on trimmer transfer by left roll case. Rolls next to the edger take stock channeled from drop sorter to the trimmer chain.



Gang edger is Prescott 3-saw 6x42-inch unit with C&D setworks. Deck stores stock from gang saw.



Company-built trimmer takes output of gang side. It also accepts retrim loads from yard through system of pull-up chains and breakdown hoist. Trimmer offbears onto belt which deposits stock on transfer chain running under mill floor to rolls which convey stock to the green chain.



Cant flipper on feed side of vertical resaw is air-operated cylinder with free-spinning wheel on top. It allows resawyer to turn cants easily.

Both the ofbearer and the "button-pusher" have control of the offbear transfers so either can control them as necessary.

The head sawyer takes a slab on the smaller logs (Hines' average log is now 19 inches in diameter) and they are directed to either the gang or the horizontal resaw, depending upon the workload on each.

About one-third of the mill's production goes through the gang and about 30% of this is in small slabbed logs. The balance is in cants.

Ganged stock offbears to the storage table for the gang edger and then to the gang trimmer feed table. Retrim loads are processed through the same trimmer by a system of pull-up chains and a breakdown hoist feeding the other side of the trimmer.

Under the all-new timber handling system, timbers can offbear from the headrig directly down the main offbear rollcase to the timber cutoff man who has an automatic cant-turner to obtain the best grade utilization from this stock. With live rolls, he maneuvers the timber for trimming with his circular saw. Timber outs fall back to the trimmer table or edger.

The timbers offbear outside the building to a decline to the tallying and grading area where a West Coast Lumberman's Association grader operates. A jib crane is used for sorting timbers which are made into packages, in order, and loaded by fork lift.

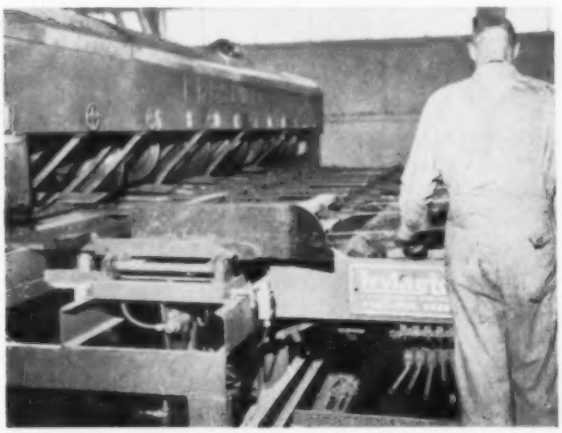
Hines produces about 10 million board feet of timbers annually.

Slabs and some of the small logs go to the horizontal resaw which offbears to a transfer table feeding a three-arm drop-sorter. The operator can direct stock in four different ways. He operates a flipper which lifts up the resawn piece, allowing the slab to slide down to a lower-level slasher conveyor.

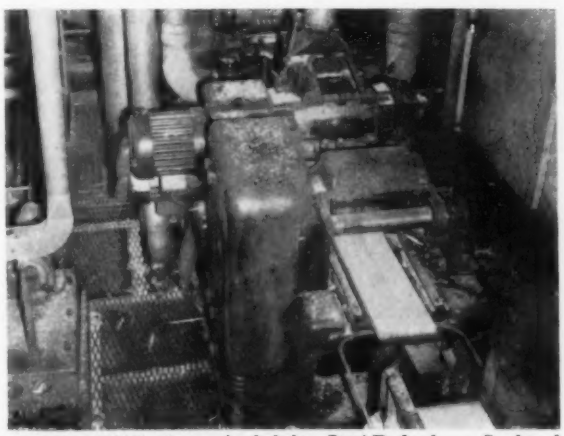
The second drop-sorter routes stock directly to the bull trimmer feed table. The third drop takes stock back to the horizontal resaw via a merry-go-round. Stock to be edged is transferred across the sorter to the resaw edger feed rolls as the fourth form of lumber distribution.

Cants routed to the bull edger are picked up from the main offbear rollcase by a jump chain. Edged stock from the bull edger offbears across a rollcase where jump chains can pick it up for transfer either to the three-arm drop sorter or to the rolls feeding the timber cutoff saw.

(Continued on next page)



Trimmer serving planer is Prescott 24-foot smooth-end unit served by Moore unstacker and Irvington feeder and end brander. Breakdown hoist is mounted under unstacker so that yard stock also can be fed to trimmer-planer.



Woods 409MI planer is fed by J44AB feeder. Surfaced stock offbears to dry sorting chain. Merry-go-round served by swede puller brings stock back around to Stetson-Ross hula saws for retrimming. Planer has GE controls.

Vertical resaw is a salvage and up-grading unit. It operates on merry-go-round off sorting chain. Ward line bar setworks on Prescott 7-foot band enables button-setting of most popular cuts: 1 through 4 inches.

Green chain is 475 feet long. It provides space for vast number of sorts required in 40-foot mill. It has power pulling rolls. Right angle in chain is necessitated by its location between steep mountain and the river.

The third option for the bull-edged stock is to offbear directly to the bull trimmer feed table. This flow is all directed by the bull edger operator.

The bull trimmer offbears onto the grading chain which proceeds past a drop-sorter directing stock to a seven-foot vertical resaw which serves as a salvage and upgrading unit. The resaw offbears back onto the grading chain where a lumber straightener and slab-puller pulls slab for a four-saw slasher feeding the main refuse conveyor. Yard stock can also be fed to this slasher.

The main slashers—a 9-saw installation—are located at the end of the slasher transfer running under the three-arm sorter. This slashed refuse also offbears onto the main refuse conveyor. The conveyor directs the refuse either to the hog with further conveying to the fuel bin, or directly to the burner when necessary.

In addition to the production line and equipment changes in the mill, all-steel catwalks, ladders and stiles were added for safe efficient access to all areas of the mill.

The planing mill was highly streamlined. A short-coupled planing mill is now located in the old dry sorting area. A single planer and timber sizer now handle the surfacing operation as compared to the former four planers and a blanker.

The secret is that the old mill facilities were geared to handle two shifts. The tracks, kiln-carts, etc. are still used. This allows a two-million-board-foot rough storage of lumber on the carts ahead of the planer. Planer runs can be well-planned for the most efficient operation.

All fir and hemlock dimension and all hemlock boards are kiln-dried.

Principal production equipment. Prescott 10-foot headrig; Prescott 4-block 84-inch carriage with I. W. Johnson steam drive; Wickes cant gang, with Prescott 3-saw 6x42-inch edger with C&D setworks, and company-built trimmer; Prescott 6-foot horizontal resaw with Schurman 42-inch edger; Gerlinger 14x72-inch bull trimmer with M. A. Ward automatic setworks; Prescott 7-foot vertical resaw with M. A. Ward automatic linebar; Moore 24-foot unstacker; Prescott 24-foot smooth-end trimmer with Irvington feeder and end-brander; Woods 409MI planer fed by Woods J44AB feeder, GE controls; Stetson-Ross hula saws.

Control panel for fuel bin has Dumont TV screen. Fireman monitors fuel bin operation, watching bin while operating rake by remote control. Panel is from Controls & Communications, Eugene, Ore.

Fuel bin has remote-controlled Ederer feeds boiler conveyor. Hog fuel, planer shavings, sander dust all provide fuel. ■■

Saw Filers' Room

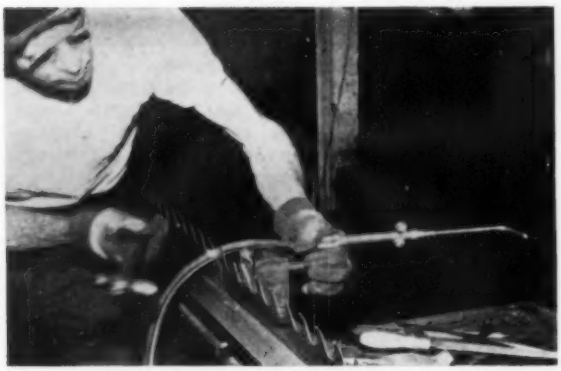
Modified snap pliers used to build up teeth . . .
Safer method to turn headrig while grinding w

1 Head Filer William Roope, American Forest Products Corp., North Fork, Calif., displays here the two essential elements he uses to do a better job of building up teeth: top—a pair of 8-inch snap pliers modified by having a flat piece of steel ¼x1x2-inch welded on each jaw so that the two are parallel to the saw; bottom, strips of saw steel for welding, sheared from a discarded saw.

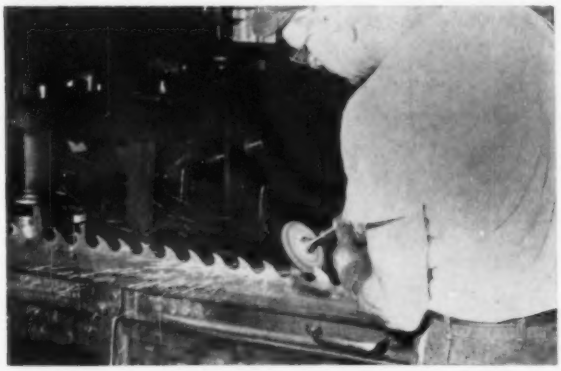
2 Mr. Roope clamps the pliers at the point where the missing tooth is to be replaced. The flat steel rectangles, set at an angle on the pliers, are horizontal when clamped in position. The spot is then dressed off level.

3 He forges down to a ⅛-inch base, producing a thickness of about twice that of the saw—to begin the weld on. He then welds much thicker than the saw and also gives plenty of height for dressing.

4 Next, he forges down, using a bucking bar and hammer. Then he measures tooth space and height. He finishes and anneals to a deep purple, and he leaves the tooth at about 1/16 inch high in order to swage level. (The pliers are dipped in water after each forging).



5 For the final touches he uses a 5,000 rpm drill with a ½x5-inch stone to shape the face side and outside—then finishes with a sander. The process requires about 20 to 25 minutes for complete operation. The system, he feels, allows him to do a better job of building teeth. He has put in 63 at one stretch using this system. And two years ago he replaced 300 teeth and of these only 5 were lost. ■■



Head filer Russell Fadeley at Hughesville Hardwood Co., Hughesville, Md., smooths out a welded spot on an old, toothless band saw which will be used to turn headrig wheels while they are being ground. This is much safer than using a toothed saw, and does the same job. He uses Simonds saws, Hanchett grinding equipment. ■■

Structure centers from a 12-sided reception area in the center. Executive offices are on the right, other offices on the left. Ceilings are open beam type construction. Roofs of the building drain to center carrying water down through a central drain and avoids ice-downs in winter. Exterior is stained, rough 1x8 Englemann spruce. Landscaping of entrance includes a pool at front and seven small fountains, with walk over the pool.

Warren Brown Builds a Wood Showcase

Exceptional use of wood in this beautiful and highly functional office building of Brown's Tie & Lumber Co., McCall, Ida., is an outstanding example of an imaginative approach to wood use. The building is pleasing in architectural lines, function and comfort.

The new mill office building is located on the east shore of Payette Lakes, just south of the company's sawmill. It was designed and constructed to provide a complete display of all the woods manufactured by the company. A variety of finishes were used to show wood grains and decorative values of wood products.

The office has a complete intercom system within the dial phones plus Vinyl carpet flooring throughout. Two water systems serve the building. Water for interior use comes from the village mains and water for the outside decorative fountains and pond comes from the millwater system.

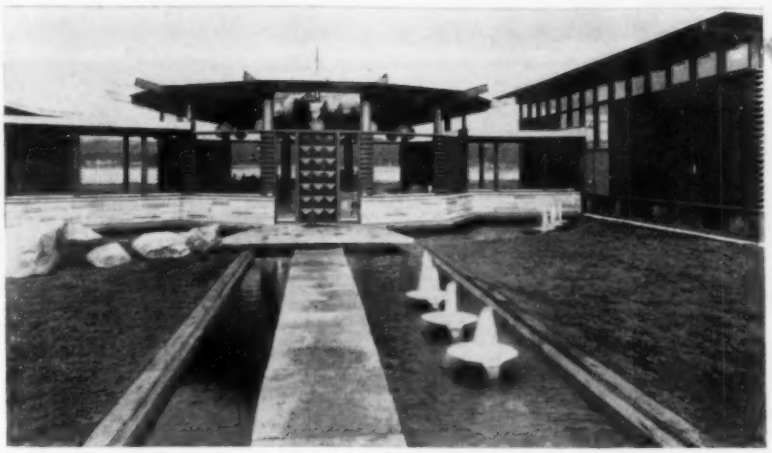
The structure was designed by Warren Brown's son, Frank, and stands well to place this young architect in top ranks. The building was planned to take advantage of the lake view.

Finishes in other offices not shown, include use of select Englemann spruce with rough 4x8 larch beams; walls are of select larch 1x6, 3x16, V-joint. Colors vary from natural to browns, reds and soft whites.

Central reception office is in center of building, joined to the office wings by glassed-in walkways. White fir deck ceilings, rough larch beams and a blue mosaic-tiled, concrete column rests in a planter. Indirect light on center post reflects against ceiling copper disc. The 2x4's in the center are held in direct compression by steel tension ring.

Hallway serving offices has select spruce and rough beam ceiling. Walls are select larch with T-shaped batt set into the joints to eliminate shrinkage problems. Note unusual light fixtures. The hall joins to the glass passageway between the reception and general offices. Light fixtures were selected to blend with the wood.

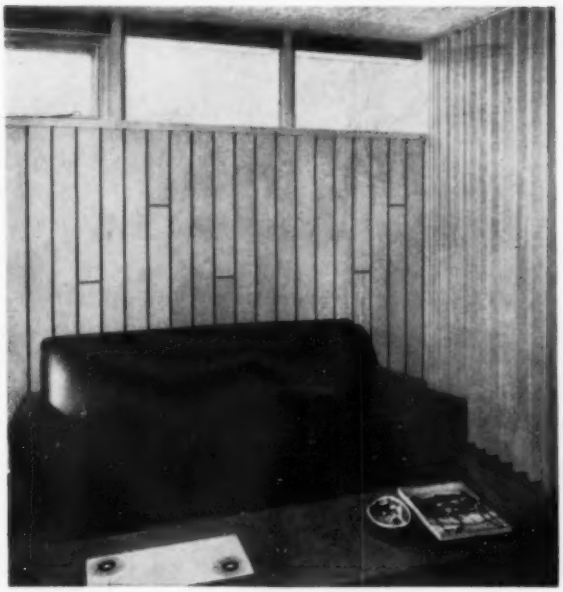
Right, above: central reception office is a 12-sided star with copper points. Extensive use of glass provides striking visual entrance with lake in background. Right upper floor of tri-level section houses executive offices. Lower section with windows around outside at ground level opens on ground level on lake side. It houses both a conference office and mill superintendent's office. The entrance door is custom built of ponderosa pine. Walk across pool is startling and pleasing.



Right, center: walls of this office are 1x8 select larch with copper tone finish. Conclave beams are laminated fir and larch. Ceiling is Englemann spruce.

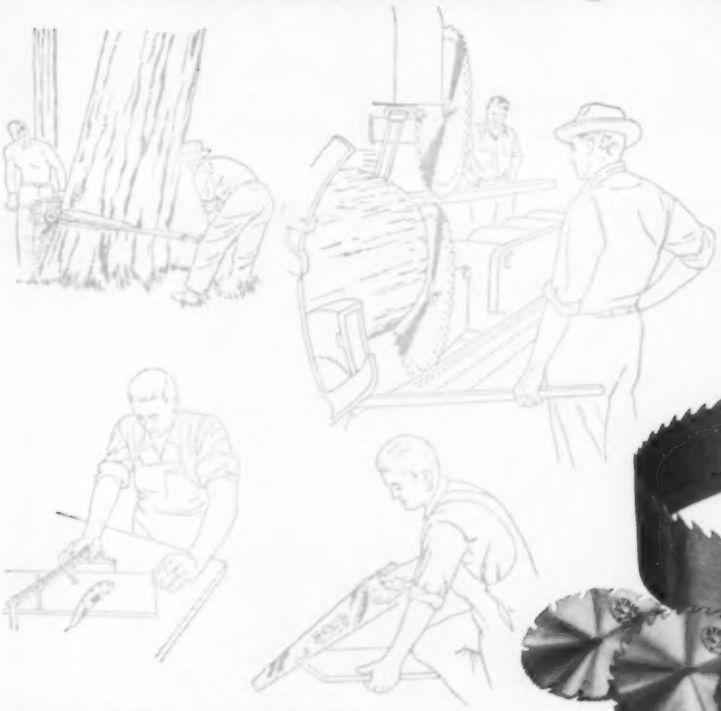
Left, below: office wall is of select Englemann spruce with board and gap pattern. Sliding door to right of Sitka spruce makes unusual combination.

Right, below: unusual wall features ponderosa pine with white Rez finish. Inlays were cut from 6/4 pine. Strips between blocks are painted black. Wall is solid. ■■



Generations of Men and Trees
have spread the fame of

Atkins Saws

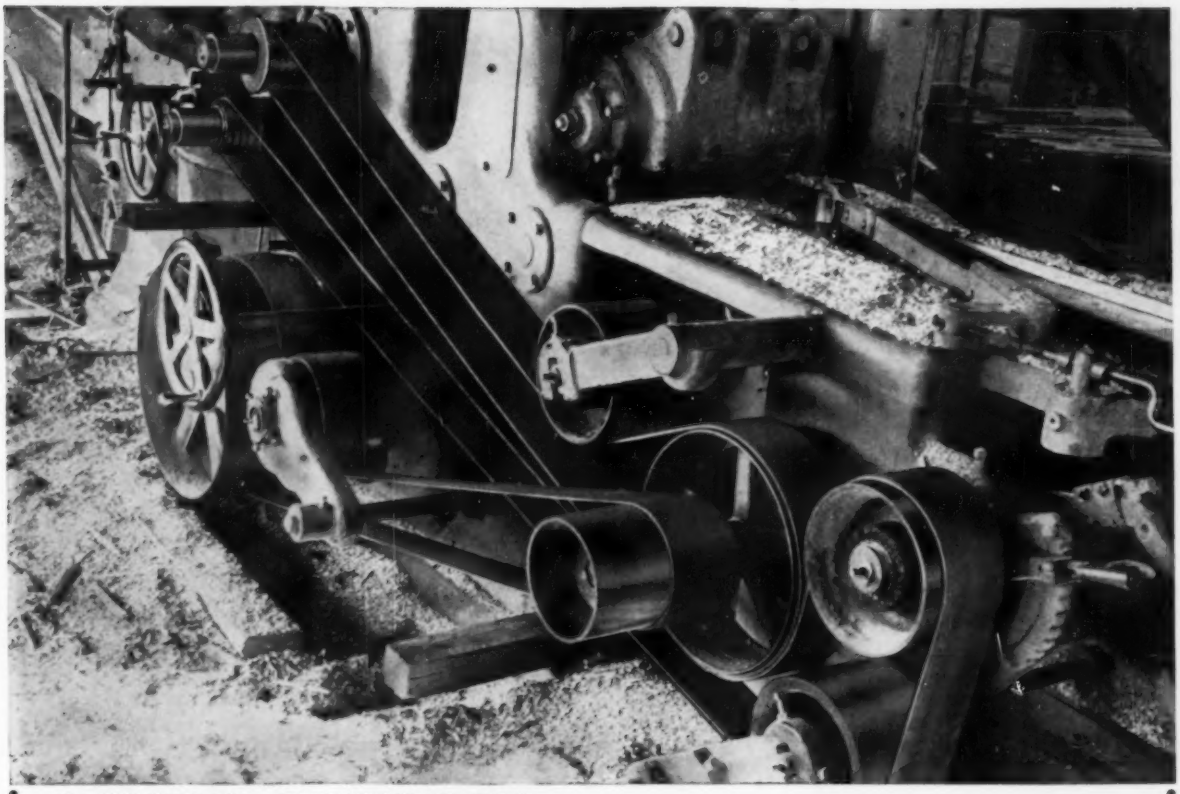


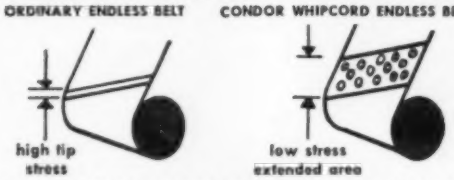
For more than 100 years—
wherever wood is cut or crafted
—Atkins Saws have helped perpetuate
the finest traditions of the sawyer's art. From
father to son, through generations of men
and trees, the fame of ATKINS Silver Steel
—the saw that makes a man *proud* of his
work—is inseparable from the heritage
of skill and enterprise that has made
the woodworking craft one of
America's most honored pursuits.

Our SECOND CENTURY
of Service to the
Woodworking Industry

ATKINS SAW DIVISION, Borg-Warner Corporation
INDIANAPOLIS 25, INDIANA

Branches: CHICAGO • LOS ANGELES • SAN FRANCISCO • PHILADELPHIA • GREENSBORO, N. C. • GREENVILLE, MISS. • PORTLAND, ORE.
Export: BORG-WARNER INTERNATIONAL, 36 S. WABASH, CHICAGO 3





"MORE USE PER DOLLAR"

Exclusive Extensible-Tip Cover Splice extends stress over wide area with special rubber rivets . . . prevents cover separation under tension . . . prolongs endless belt life.

CONDOR ENDLESS BELTS OUTLAST 3 TO 10 ORDINARY BELTS

All-purpose Condor Whipcord Endless Belts provide steady, unfailing power delivery with high overload capacity—outlast as many as 10 ordinary belts on the toughest drives. Condor Belts feature an endless-wound, sealed-in cord construction which is destretched during manufacture. They can't shrink on the drive, are virtually unaffected by atmospheric changes. Manhattan's exclusive Extensible-Tip cover splice assures positive protection against cover separation—even at highest tensions.

Highly flexible, Condor Endless Belts offer exceptional advantages where serpentine drives supply power for several operations. Write for Bulletin 6869.

CONDOR COMPENSATED BELT

On closed drives where fasteners are required, Condor Compensated Belt holds fasteners up to 4 times longer than other belts. An exclusive process *equalizes* belt ply stresses rounding pulleys . . . eliminates ply rupture and separation—*especially at the fasteners!* Write for Bulletin 6808.

RM1040

LET AN R/M REPRESENTATIVE HELP YOU SELECT THE CONDOR BELT ENGINEERED TO GIVE "MORE USE PER DOLLAR".

RAYBESTOS-MANHATTAN, INC.

MANHATTAN RUBBER DIVISION, PASSAIC, NEW JERSEY

CONDOR WHIPCORD ENDLESS BELTS

- **For High Speeds, Heavy Loads, Short Centers... at High Tensions**
- **Length Unaffected by Atmospheric Changes**
- **Ideal for Serpentine Drives... Small Pulleys, Reverse Bends, Short Centers**
- **Selection of Driving Surfaces to Meet Tension Requirements**

RM

ENGINEERED RUBBER PRODUCTS ... MORE USE PER DOLLAR

for faster free-rolling action!

Moline
roller-top chain

Boards pull easier at the sorting table and cross handling is faster when you select Moline Roller-Top Table Chain to suit the application. And Moline offers the largest selection—three different types with either the long rollers or the new split type rollers.

Moline's new Split-type Roller Chains reduce the extra weight and friction caused by random sizes and heavy boards overlapping long rollers. Thus they materially reduce fatigue and make sorting easier and faster. No wonder Moline Roller-Top Chains are used in 75% of all table top installations in the West.

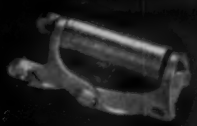
Call your local Moline Chain distributor and let him show you the advantages of various types of Moline Roller-Top Chain.

Moline Chains

MOLINE MALLEABLE IRON CO., ST. CHARLES, ILLINOIS
Specializing in the manufacture of chains

LONG OR SPLIT TYPE PEDESTAL LINKS.
Are joined together with oval links. Split type has two independent rollers on a single shaft.

NEW H-78 RT SPLIT TYPE ROLLER.
Available in Malleable or Promal or a combination of both.



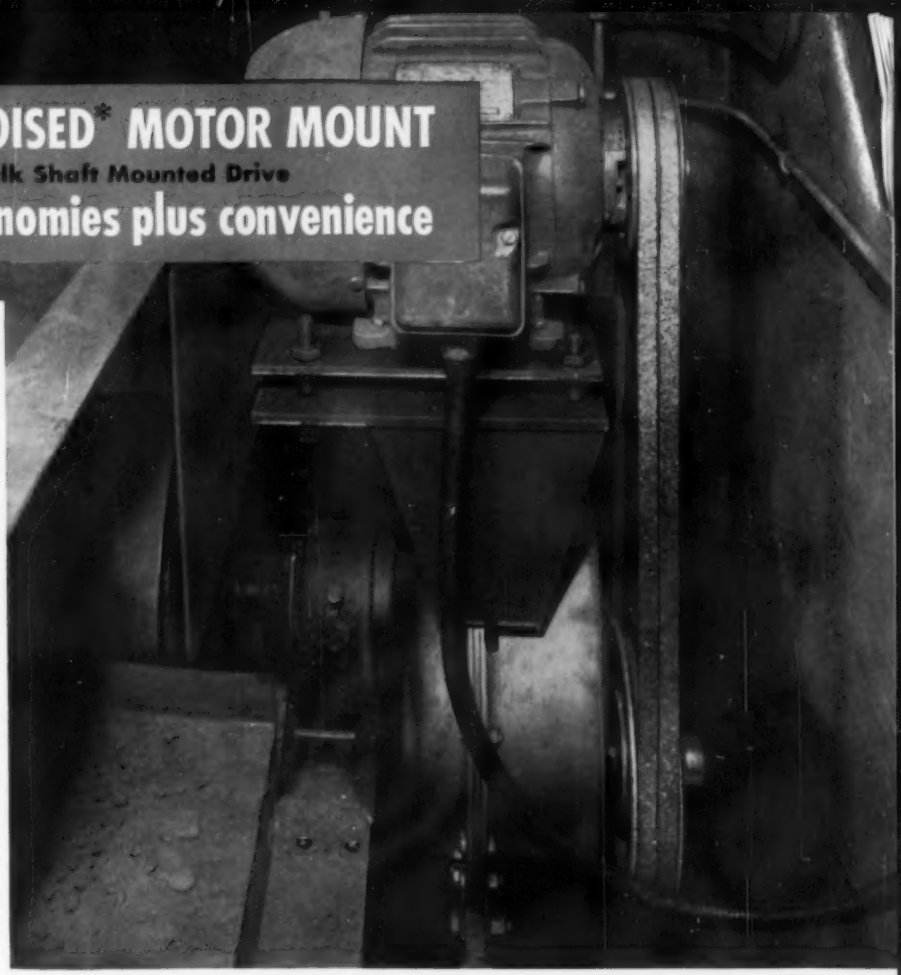
NEW H-78 SR LONG ROLLER.
(Same as above except for single long roller.)

MW-188 ROLLER TYPE CHAIN.
Combines the strength of combination chain with the utility of the roller top.

NEW FALK EQUI-POISED* MOTOR MOUNT

for use with the Falk Shaft Mounted Drive

gives unequaled economies plus convenience



HOW A FALK EQUI-POISED MOTOR MOUNT REDUCES BEARING LOADS ON A DRIVEN MACHINE

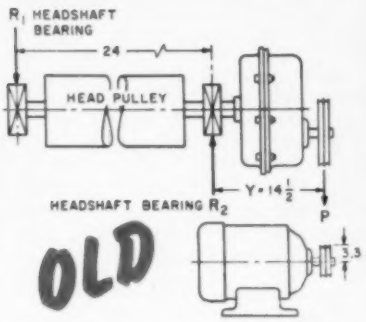
GIVEN:

Motor—15 hp, 1750 rpm, Frame 284U, Weight—320 lb.
Sheave diameters—6.6/9.4
Driven machine—belt conveyor with 24" center distance between headshaft bearings.

NOTE:

Weights of 307J24 Shaft Mounted Drive, sheaves, and V-belts are eliminated from calculations because they remain constant; do not affect the comparison.

WITHOUT FALK MOTOR MOUNT



Torque at motor shaft = $\frac{63{,}025 \times 15 \text{ hp}}{1750 \text{ rpm}} = 540$ lb-in.

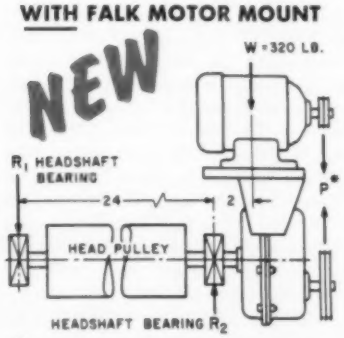
Belt pull (P) = $\frac{540 \text{ lb-in.}}{3.3"} \times 1.5$ Load Connection Factor = 246 lb

$R_2 = \frac{246 \text{ lb} \times (24" + 14.5")}{24"} = 395$ lb

$R_1 = \frac{246 \text{ lb} \times 14.5"}{24"} = 149$ lb

(Check: 395 lb—149 lb=246 lb)

WITH FALK MOTOR MOUNT



*P = ZERO REACTION AT HEADSHAFT BEARINGS

V-belt pull has zero reaction on headshaft bearings. Therefore—

$R_2 = \frac{320 \text{ lb} \times (24" + 2")}{24"} = 347$ lb

$R_1 = \frac{320 \text{ lb} \times 2"}{24"} = 27$ lb

(Check: 347 lb—27 lb=320 lb)

Falk's new EQUI-POISED* Motor Mount is a rigid, all-steel weldment, pre-drilled for bolting standard NEMA foot-mounted motor (1/2 to 30 hp) directly to the steel frame of Falk Shaft Mounted, Flange Mounted and Screw Conveyor Drives. With it, motor can be mounted in almost any position around perimeter of reducer.

(*Balancing of forces.)

Substantial Savings for You

It saves engineering time required to design special motor bases and foundations...saves cost of labor and materials required to build special motor foundations...and saves on equipment costs by using a quality stock component. Further, its quick installation and easy maintenance mean added cost savings. The Motor Mount is a space saver, too. Where restricted space is a factor, ability to mount motor in any of several positions is an important convenience...For information on range of sizes, dimensions, etc., contact your Falk Representative or Distributor—or write direct for Bulletin 7100.

THE FALK CORPORATION, MILWAUKEE 1, WISCONSIN

MANUFACTURERS OF QUALITY GEAR DRIVES AND FLEXIBLE SHAFT COUPLINGS

FALK
...a good name in industry

Representatives and Distributors in most principal cities

FALK is a registered trademark

National Hardwood Lumber Association

Hardwood Consumption and Prices Climbing

A spirit of optimism was evidenced by the members of the National Hardwood Lumber Association attending the three-day annual convention in Chicago October 4-6. It was one of the largest meetings ever held by the hardwood trade, with over 800 registered.

President Bernard Bock told the assembly that the industry is more united than ever before, and cited as the unifying element the National Wood Promotion Program.

"In every quarter of 1960, so far, hardwood consumption has run ahead of the same period in 1959, and the average prices have also run higher," Mortimer B. Doyle, executive vice-president National Lumber Manufacturers Association, said. "The consuming public has been assured that the product they purchase will be what it has been represented to be. Now that they have this assurance, producers must meet the increased demand the program has created." Mr. Doyle said competition is in the market place with both feet and intends to stay; and further, that dissension among ourselves is the greatest opportunity for competition to move in. He said it would take approximately $2 million to sustain and consolidate the gains already made.

H. F. Staniforth, president Canadian Lumbermen's Association, said the hardwood plywood industry is far from satisfactory; on the other hand, the hardwood lumber market is bouyant.

NEW OFFICERS, from left: James P. Hamer, J. P. Hamer Lumber Co., Kenova, W. Va., 1st vice-president; Mark Townsend, Townsend Lumber Co., Stuttgart, Ark., president; L. D. Kellogg, Kellogg Lumber Co., Alexandria, La., 3rd vice-president; Donald F. White, White Bros., Oakland, Calif., 2nd vice-president; M. B. Pendleton who continues as secretary-treasurer, Chicago.

Dr. Edward G. Locke, director, Forest Products Laboratory, Madison, Wis., told the convention, "We are growing more hardwood than we are cutting, *but* too much of it is too far down the list of "wanted" species. Two examples, Dr. Locke cited were—aspen, which has moved up in the Lake States from a position of scorn to the No. 3 tree for pulpwood; and elm, for which the laboratory has just issued a new kiln drying schedule.

"Whatever the species or product, research can make it better!", Dr. Locke said. He then told of recent research and new developments at the laboratory which included the following:

Solar pre-dryer, which can be used economically even in Wisconsin.

Slicing of logs into lumber up to ½-inch thick rather than sawing it. "Slicedwood" has flawless faces which need not be planed, can be dried in a veneer dryer, and can be edge bonded for large panels.

Paper overlay of low-grade lumber. Principal advantage is upgrading, such as better paint surface. The product has held up three years on test weathering surfaces—indicates the possibility of producing good siding for $50 to $70 per thousand. ■ ■

Lumber Industry Agrees on 4x2 Package for Unitized Handling

The smaller unit, replacing a 4x4-foot size, was agreed upon as a concession to retail lumber dealers who do not have large fork lift equipment. The decision came at a joint meeting of retailers, wholesalers and manufacturers of lumber meeting in Washington, D.C. It was felt that while the larger unit was efficient for some operations, it was too heavy for the yard employing a smaller lift truck.

Frank M. Hankins, Jr., of H. H. Hankins & Brother, Bridgeton, New Jersey, representing the National Retail Lumber Dealers Association, and George Flanagan of the Elk Lumber Co., Medford, Ore., representing the National Lumber Manufacturers Association, were co-chairmen of the meeting. Other associations represented were: Southern Pine Association, Western Pine Association, West Coast Lumbermen's Association, and National-American Wholesale Lumber Association.

A new standard terminology has been suggested and when referring to strapped lumber the joint committee recommends all segments of the lumber industry use the following terms.

Packet. The term packet should be used to describe lumber (board or dimension) which has been strapped to form, in most instances, either the 2x2-foot packet put up by various mills at the present time, or the regular McCracken packet.

Standard Lumber Unit. The actual dimensions of the standard lumber unit will be 4 feet wide and 2 feet high. Below is a table showing the number of pieces in the standard unit, and the number of pieces wide and high in which the more popular dimension lumber will be strapped:

2x3	—	240	pcs	per	unit	16W	x	15H
2x4	—	180	pcs	per	unit	12W	x	15H
2x6	—	120	pcs	per	unit	8W	x	15H
2x8	—	90	pcs	per	unit	6W	x	15H
2x10	—	75	pcs	per	unit	5W	x	15H
2x12	—	60	pcs	per	unit	4W	x	15H
3x4	—	108	pcs	per	unit	12W	x	8H
3x6	—	72	pcs	per	unit	8W	x	8H
3x8	—	54	pcs	per	unit	6W	x	8H
3x10	—	45	pcs	per	unit	5W	x	8H
3x12	—	36	pcs	per	unit	4W	x	8H
4x4	—	72	pcs	per	unit	8W	x	6H

When 1-inch boards are strapped into standard units, they will be stacked 30 pieces high.

Package. A package will be two standard units placed one on top of the other and strapped together. The packages may be subdivided into packets as described above, or in any way mutually agreed upon between the manufacturer and the wholesaler or retailer. ■ ■

World Forestry Congress Report

Sources of Raw Material for Boards

By HARRY SCHWARTZ
Superintendent, Forest Products
Laboratory of Canada, Ottawa, Ont.

The growing importance of the fiberboard and particleboard industries is readily appreciated by a glance at production figures over the last five to ten years. From 1948 to 1958 world hardboard production increased by about 200% and insulation board by about 30%. The total fiberboard production in 1958 was about 3.6 million tons, and it has been estimated that it will reach 5 million tons by the end of 1960.

It is significant that by the mid-fifties hardboard production forged ahead of insulation board due to the large expansion of production facilities in Europe, particularly in the northern countries. While hardboard production in the U. S. A. is on the increase, insulation board production seems to have leveled off.

Particleboard production has shown a phenomenal rise, having increased by over 600% from 1953 to 1958. Europe produces by far the largest quantity, followed by North America and Africa. From a humble beginning in 1941 when one German plant produced particleboard from wood chips and phenolic binder, the industry grew to about 244 plants throughout the world by 1956 with an estimated production of 572,000 tons. Production during 1957 was 800,000 tons, and in 1958 it rose to 906,000 tons.

The consumption of fiberboard in Sweden and Norway remained high from 1948 to 1957. Finland made a remarkable gain in consumption after 1952, passing both Canada and the United States. A great increase has also been recorded by the Netherlands. Total particleboard consumption in Europe is still considerably below that of fiberboard, although annual per capita consumption in several countries is quite high.

One of the features that attracts manufacturers of fiberboard and particleboard is flexibility of raw materials that can be used.

A useful means of classifying raw material might be according to its forms regardless of its origin. For the purpose the use of the following breakdown is of some convenience:

- Roundwood (primary harvest)
- Solid wood residues (slabs, edgings, cutoffs, veneer clippings, veneer cores, forest thinnings, limbs, tops, crooked logs, etc.)
- Comminuted wood residues (shavings and sawdust).

Roundwood. Normally roundwood may be considered the most desirable material for board manufacture. Such wood is readily processed by common methods in general use in the pulp and paper industry and provides scope for manufacture by any board-making process of products of a great variety of qualities. Roundwood may be converted to groundwood pulp and used in the manufacture of insulation board, or it can be converted to pulp chips and used in the production of any type of fiberboard. The chips may be further processed for particleboard.

Sound wood is required, in board manufacture, although most processes will permit the use of a small proportion of decayed wood. For practically all operations, coniferous woods are preferred, although there has been a considerable trend toward the use of hardwood, either as a sole species or in a mixture of softwoods and other hardwoods. When hardwoods are used, the medium to low density species are most common. The denser species require more power for chipping and conversion to pulp, and present additional problems in maintenance of cutter knives. The density of the species used for particleboard may be a determining factor. Lighter wood is preferred, mainly to facilitate compressibility in manufacture and to produce the preferred lower density finished product. For these reasons, the species of wood used in the manufacture of fiberboard and particleboard are usually in the density range of 0.40 to 0.60 grams per cc.

The moisture content of the raw material is also an important consideration. It is less economical to pulp dry wood and the quality of the fiber will not be as high as for green wood. Too high a moisture content, on the other hand, is undesirable, as this would make drying costs high. There is some evidence that particleboard produced from green wood has a higher bending strength than that produced from dry material.

Another factor in particleboard manufacture, other than moisture content, is the acidity of the wood. It is claimed that it is important to maintain a constant acidity, particularly when mixed species are used. The degree of acidity will have a bearing upon the setting of the synthetic resin adhesive required to glue the wood particles together.

Solid wood residues. This grouping could include materials such as slabs, edgings, cutoffs, veneer cores, forest thinnings, tops, crooked logs, etc. While it can be said that almost any type of solid wood residues can find application in the manufacture of one or more types of fiberboard or particleboard, not all forms of solid residue are necessarily useful for all types of operations.

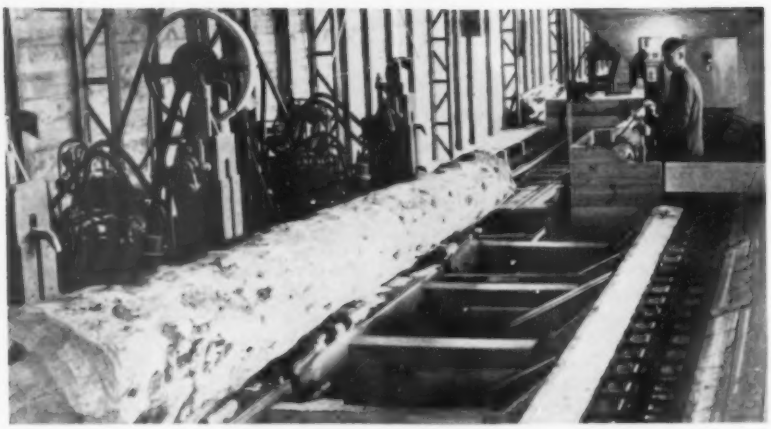
Limitations previously mentioned regarding the use of roundwood apply equally, of course, to solid wood residues. Additional limitations will arise due to such factors as dimensions, shape, and other physical or mechanical factors.

Veneer cores, forest thinnings, slabs and edgings may be used, just as in the case of roundwood, in the preparation of groundwood pulp for insulation board manufacture or converted to chips and defibered in attrition mills for use in insulation board or hardboard manufacture. Bark is tolerated in small quantities (perhaps up to 15%) and is only permitted where its inclusion does not detract from the appearance of the fiberboard or interfere too much with the pulp drainage, strength or other properties.

In the manufacture of particleboard from random particles, almost any physical form of raw material can be used. High quality board will require bark-free raw material. Also, many particle cutting machines have limitations. It is expected that new developments in cutting equipment will permit the use of lower and lower grades of wood residue in preparation of engineered particles.

Shavings and sawdust. Shavings from planers and other woodworking equipment are not considered the most desirable raw material for fiberboard manufacture. They are usually steamed and refined, and added to the insulation board furnish.

(Continued on page 58)



Paul Chambriard takes over sawyer's controls to demonstrate sawing speed, accuracy and efficiency of mill's Filer & Stowell carriage.

Selectric setworks elements are pictured here. Metal control box on wall at right houses potentiometers for simple off-carriage adjustment of each set size. Sawbox equipment includes sawyer's controls with push button setworks and dog controls for carriage feed and nigger levers. Units between feed and nigger levers include push button selector station with taper switches and electronic backstand control.

U. S. Machines Up Output of French Mill

The Paul Chambriard S.A. sawmill in Brioude, France is owned by Jean Paul Chambriard whose son, Jean Paul, Jr., was instrumental in modernizing the pioneer sawmill along the lines of American operations. The mill was established in 1870 by young Paul's grandfather and has been in the family since that time.

Production boosted. Until current modernization, the mill's output was 7000 board feet per day with 18 men. New equipment has boosted output to 30,000 board feet per day with 8 or 9 men.

Mr. Chambriard began mill modernizing in mid-1956 with the purchase of flippers and log turners. He then bought a new carriage. The new carriage is a Filer & Stowell, 3-block, 42-inch opening, rack and pinion air dog unit. The new band saw is a 6-foot Monarch Forge rig. The Filer & Stowell carriage feed is driven by a drive unit using AC magnetic clutches, utilizing the same motor that powers the band saw. It has a 380-volt power supply using 115 volts and 230 volts at 50 cycles.

Electronic setworks on carriage is a Selectric 7½-hp medium duty unit with a Model E-100-A 12-set push button preset and an indefinitely variable electronic backstand control graduated to 100 centimeters. Scales and controls are graduated in the metric system.

A Schurman line bar resaw has a Selectric 12-set setworks. It was installed in anticipation of a new resaw.

Automatic green chain just completed dropsorts boards for length. Board will be taken from the sorting slots to the planing area. Plans are made, and space provided, for the addition of an edger. A new resaw is to be installed in the future.

A fork lift truck is used to put the logs on the log deck from which they are rolled into the mill by hand.

Mill cuts European fir, pine and oak. Some logs come from the company forest lands and some are purchased. Chambriard has some Douglas fir, brought earlier from America. European fir is slower growing and has a finer

Machinery Manufacturers and Distributors

The first annual convention of the Woodworking Distributors Association was held at the LaSalle Hotel, Chicago, Ill., on September 29th and 30th. As a special feature of this convention, a joint session was arranged with members of the Woodworking Machinery Manufacturers' Association who held their regular fall meeting concurrently.

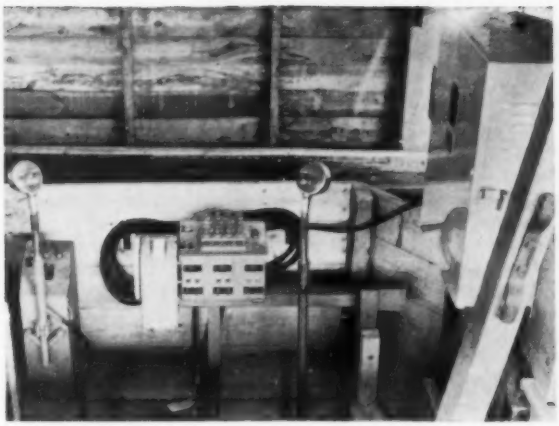
Purposes and objectives of the year-old organization are to promote friendly business relations and mutual confidence among its members and others in the industry, as well as to bring about the utmost in efficiency and economy in connection with the distribution of woodworking machinery.

In reviewing the association's first year, President Laurence Field cited as outstanding achievements, the association's participation in NLMA's Wood Promotion Program; growth of membership — from 52 charter members to 62; the adoption of a code of ethics; and the adoption of a WMDA emblem.

Mr. Field expressed confidence that lumber can be re-established to its rightful place in industry. "Wood will not only recapture lost markets, but will move on to unprecedented prominence," Field said. He added that "we need positive thinking and aggressive action.

In a panel discussion on "What Can We do Jointly to Convince the Customer that Machinery Is Worth Its Price?" these points were stressed:

- Price manipulation is our worst problem in convincing customers that the price is right.
- Distributors must emphasize *qual-*



New mill building and lumber yard. Short timbers in foreground are trims from logs and will be used for mine prop timbers. Smaller trims go to pulp mills. An automatic green chain was built to the right of the building after this picture was taken.

grain than Douglas fir. Chambriad cuts the fir when 80 to 100 years old. Maximum diameter of logs is 32 inches and average is about 20 inches.

U.S. ideas used. Paul Chambriard Jr., has come to the United States several times. On one such trip he met George Weyerhaeuser and through Mr. Weyerhaeuser, secured work at the company's Springfield, Ore., plant where he worked for nine months in 1955. During that time, he traveled extensively on the west coast, visiting mills and investigating various types of mill equipment.

Upon his return to France, he began working on plans to install new automatic type machinery to increase the mill's productivity and raise the standard of living for his employees.

While lumber from his mill is not currently being used in home building, as most houses in the area are of stone or masonry, Mr. Chambriard's ambition is to build wooden houses in Brioude. He has been corresponding with American builders in an attempt to secure plans of typical American homes that can be constructed of wood.

Old headrig is inspected by Dave Orr, left, of Mill Equipment, Inc., which supplied setworks for the new installation. Logs were placed on bench saw platform on fixed steel rollers and then dogged. Manpower fed logs to the 44-inch French-made headrig. All setting was by hand by adjusting line bar on a millimeter scale. Log was slabbed at headrig, then put through a 2-man resaw. ■■

Meet Jointly

ity of the equipment, *service* provided, and *guarantee* behind the product.

The distributors were also told that they and the customers must continue to develop more respect for one another, and that there should be no guesswork on the part of the customer or the distributor as to who is responsible for price. It was suggested:

- Tell the customer what a specific machine will do on a specific job.
- Explain the increased production

(Continued on page 63)

NEW OFFICERS of WWDA, from left seated: Marie Lawton, executive secretary; James T. Donnolly, president; Standing Robert G. Garrison, Stateville, N. C.; Robert J. Norwalk, Seattle, Wash.

LESLIE H. GEDDES W M M A president, spoke at meeting.

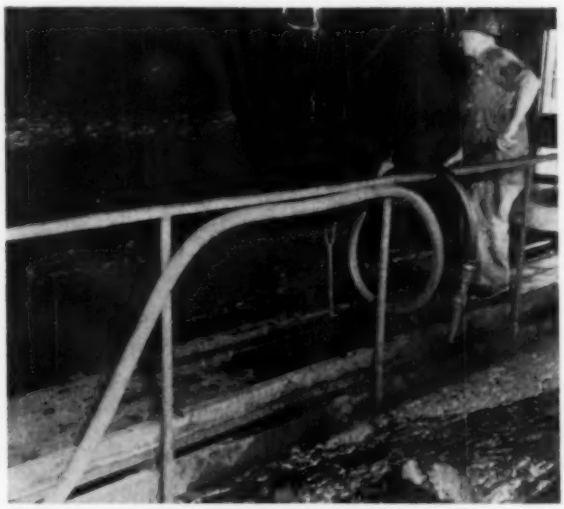
Compact Mill Employs Indoor Hot Pond,

Operating with only six men in the mill including the filer, the well-organized and compact sawmill of the Steiger Lumber Co., Bessemer, Michigan, is cutting 18-to 20 thousand per shift in hardwood, and 30- to 35 thousand in softwood. A number of features have contributed to the enviable reputation this mill has developed throughout the Upper Peninsula. Some of these are quite obvious even to a layman; like the indoor hot pond, the 400-foot-long, all-steel edge sorter, and the all-steel and concrete block construction of the sawmill and kilns. Other features might have to be pointed out even to a mill man, especially the fact that they are for the most part company made products of the mechanical ingenuity of Paul Steiger, manager, and Sy Tomczak, company millwright. In this latter category could be included an automatic cutoff saw, two lumber pre-drying units, a swinging gate on the headsaw offbear table.

A distinct departure from the usual is the fact that all lumber is piled solid as it comes from the trim saws and drops to the outside of the sawmill building. The piles are transported by forklift to a separate building which houses a tilt-hoist, the grading table, and feed end of the 40 steel slots of the edge sorter.

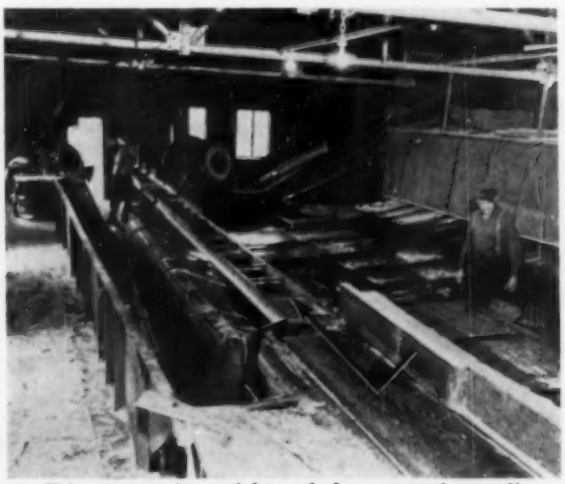
Logs are brought to the Steiger mill

1 Pettibone Cary-Lift places logs into steel and concrete building which houses the hot log pond.



2 Log pond is steam heated. Log destined for the sawmill floor leaves the area by the jackladder at the rear.

4 View of mill floor shows offbear side of headrig, edgerman and 3-saw Prescott edger with two movable, one fixed saws. Note shadowline lights above edgerman.



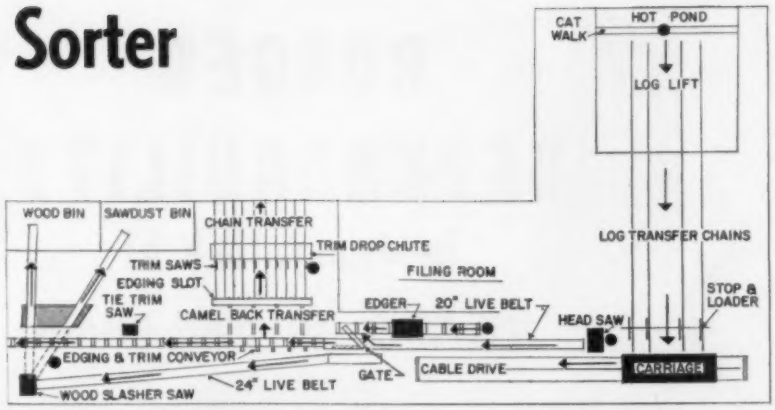
5 Trimmerman is at right and the automatic cutoff saw in left background. Swinging table gate in foreground shunts lumber by-passing edger on belt to trimmer.

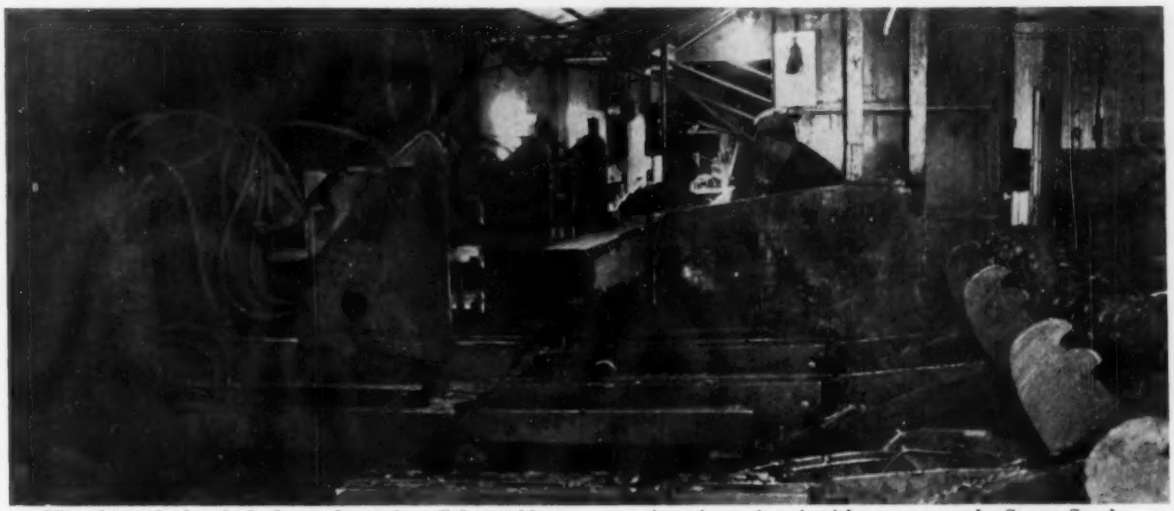
All-Steel Edge Sorter

by company trucks, both from company holdings and from market purchases. Species-wise the production breaks down into the following percentages: hard maple—42, hemlock—29, yellow birch—11, basswood—5, elm—5, miscellaneous—8.

The company has its own planer mill.

A new company is presently being formed and will be located on the premises for the purpose of dimension work and the manufacture of glued-up cores and panels.



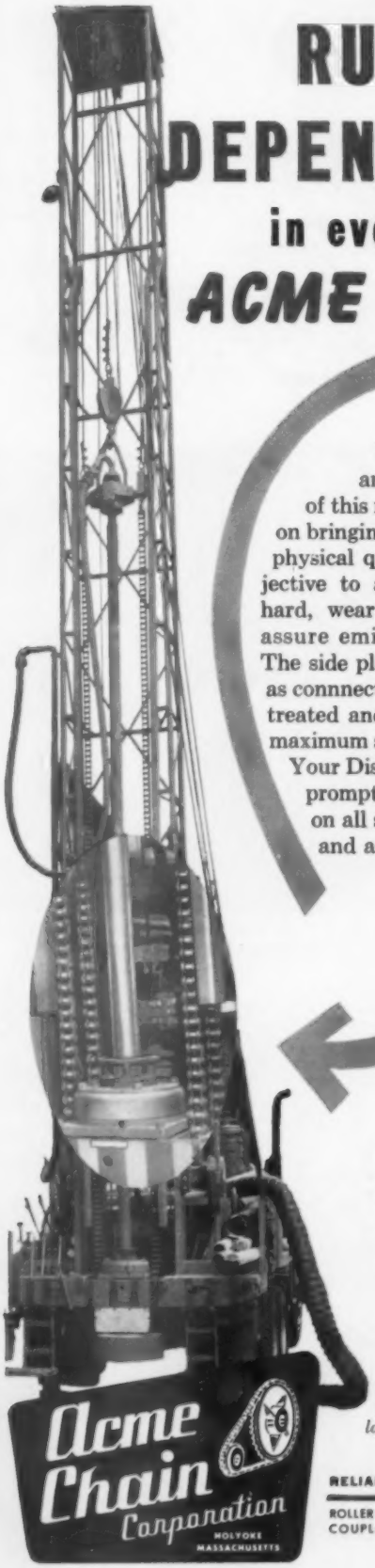


3 View from the log deck shows the 12-foot Calvert riderless carriage and the Wheland 6-foot band mill. The carriage is equipped with a panagraph, Super Swede setworks and Oil-Gear hydraulic drive.

6 Company built edge sorter is 400 feet long. This department can now handle twice the plant production. It operates one shift when mill operates two shifts.

7 Two Moore dry kilns are in production and a third under construction. Each has capacity of about 25,000 board feet. They are charged and discharged by lift truck.

RUGGED DEPENDABILITY
in every link of ACME ROLLER CHAIN



The selective steel analysis for each part of this rugged chain is based on bringing out the best possible physical qualities. All parts subjective to articulation have glass hard, wear resistant surfaces, to assure eminent life expectancy. The side plates or links which act as connnecting members are heat-treated and tempered to provide maximum strength and ductility. Your Distributor can give you prompt off-the-shelf service on all sizes of Acme chains and accessories. Call him for service.

INDUSTRIAL DISTRIBUTOR — THE RIGHT HAND OF PRODUCTION

"The function of the 2" pitch Acme chain on this all purpose air-water drilling machine, is to apply loads up to 30,000 lbs. on the drilling bit — under the most severe shock conditions." Machine shown is model KF-50 manufactured by the Buffalo-Springfield Co., Div. of Koehring Co.

Write Dept. 33Q for new ill. 100 page catalog with engineering section.

Acme Chain Corporation
HOLYOKE MASSACHUSETTS

RELIABLE CHAIN DRIVES FOR ALL INDUSTRIES

ROLLER CHAINS, SPROCKETS, CONVEYOR CHAINS, FLEXIBLE COUPLINGS, ATTACHMENTS. (Special and Standard)

RAW MATERIAL

(Continued from page 53)

Shavings are, in certain areas, a very important raw material for particleboard production. This is particularly true in the Douglas fir region of the United States Pacific Coast. While planer mill shavings are not considered as desirable as engineered particles from roundwood, they nevertheless can serve a very useful function in the manufacture of board for a variety of purposes. They are particularly useful for core material in three-layer boards.

Coarse sawmill sawdust is the least desirable for board manufacture. It is not an acceptable raw material for particleboard manufacture, since it is usually very wet, absorbs large quantities of binder, and yields a product of low strength. When mixed with more acceptable particles as part of a furnish, it has the further disadvantage of settling to the bottom during production, yielding a non-uniform product.

According to recent information, Canada is now producing fiberboard and particleboard at the rate of 321,000 metric tons per year, of which approximately 58% is insulation board, 25% hardboard and 17% particleboard. It may be noted that, for overall wallboard production, 66% of the raw material is in the form of roundwood and 34% residues. For insulation board about 1/5 of the raw material used is wood residue, while for hardboard and particleboard about half is residue material. Of the wood residues used, approximately 50% is obtained from sawmills and 25% from plywood operations.

Species used. About 60% are softwood and 40% hardwoods. The most important softwood species are spruce and balsam (36%), jack pine (11%), western red cedar (7%), and Douglas fir (5%). Small quantities of a large number of Canadian hardwoods other than poplar (34%) are used, but these only represent about 7% of the total raw materials.

In the United States the breakdown for wallboard production in 1959 is 56% insulation board, 19% hardboard, and 25% particleboard. About 85% of the insulation board made from wood fiber is produced from roundwood, with hardwoods being the predominate species (i.e., aspen, gum, cottonwood, and yellow poplar). In the case of hardboard, about 68% is made from roundwood (largely of pulpwood species) and the remainder almost entirely from Douglas fir sawmill and plywood residues.

Douglas fir residues play an important part in particleboard manu-

facture in the United States, representing about 50% of the raw material used for flat-pressed particleboard. Roundwood is only used to the extent of about 30% in flat-pressed operations and 15% in extruded board.

In the United States most of the material used in fiberboard is roundwood, while in particleboard manufacture most of the material is residue. However, from the overall picture, wood residues represent about one-third of the total raw material used in wallboard manufacture.

Board in integrated operations. The economic advantages of such associated operations are quite apparent, whether they be in procurement, production, handling, marketing. One of the attractive features about wood processing is that it lends itself to integrated operations. This, in effect, means that the possibility exists for the rational use of the entire forest crop, and during harvesting, extraction of material from the forest may be conducted simultaneously for a variety of purposes. Also, in secondary manufacture, the residue from one operation may find profitable application as raw material for another operation.

There is no doubt that serious competition exists in highly developed areas for high quality raw material, i.e., primary harvest for the manufacture of pulp and paper or lumber and plywood. Board production has the advantage of being less exacting in its raw material requirements and of being able to use some of the residues from other operations. However, the increasing use of chips from residues of veneer and sawmill operations for pulp and paper manufacture may restrict the use of such residues for board production. However, many forms of residue still are better suited for board manufacture than for other purposes.

Uses of residues has assumed the greatest proportions in wood deficit areas. The particleboard industry in Europe commenced with the use of residues as its raw material, and still relies on such material for a good proportion of present production. Many of the particleboard plants on the West Coast of the U. S. use wood residues as do many of the captive plants in the East.

Figures for wood residues produced in any one country or location is not necessarily indicative of the amount available for board manufacture. However, in cases where residues are merely burned for fuel, it would be much more remunerative to use these residues in board manufacture. Basing the operation of a fiberboard or particleboard plant on the use of residues from a sawmilling operation, for example,

(Continued on page 63)

THIS "BACKSCRATCHER" CAN BE OPERATED WITH TELEVISION TOO!

When EDERER engineers developed this giant "backscratcher" to move piles of hog fuel, they put the operator in a fully enclosed cab which moves with the rake itself. Later, at the request of a mill operator, another of these cranes was "job-engineered" to operate from remote controls in another room with closed circuit television providing "eyes" for operating the crane.

The rake on this crane operates hydraulically from the trolley. The rake can push or pull; reaches from the floor to 20 feet in the air; has a 17-foot horizontal reach with a seven-foot stroke. The rake will rotate 280 degrees. Operation may be from the cab—or as described here—by television-guided remote control.

EDERER "job-engineering" has provided specialized equipment for countless such unusual requirements in the plywood and wood products industries. Let's talk with you about your job requirements.

EDERER Cranes

EDERER "job-engineering" helps expand production in an expanding industry.

358C59

EDERER ENGINEERING COMPANY

2933 FIRST AVENUE SOUTH • SEATTLE 4, WASHINGTON

EXPORT DIVISION: 301 Clay Street, San Francisco 11, California

Since 1901 "JOB-ENGINEERING" CRANES AND HEAVY EQUIPMENT

Highly Automated Fiberboard Plant Uses

A specially designed system of automatic controls assures production efficiency and product quality control at the new Celotex fiberboard plant in L'Anse, Mich., which is described by Celotex president Henry W. Collins as the world's most completely automated and mechanized fiberboard facility.

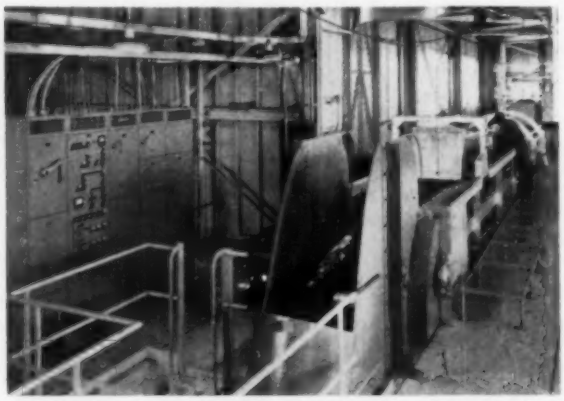
Daily production of 500,000 square feet of ½-inch board increases Celotex fiberboard production capacity by 25%. Products include acoustical and decorative ceiling tile, insulating sheathing, insulating roof deck and roof insulation for distribution mainly in the north central states.

Automatic Controls guide production from the woodyard, where raw material arrives by train and truck, through to final fabrication. Pneumatic controls accurately regulate flow of all material. These controls compensate for differences in the type of wood pulp being fed into the machines. They measure precisely the amount of other materials to be blended with the pulp, and direct manufacture of a broad range of fiberboard products.

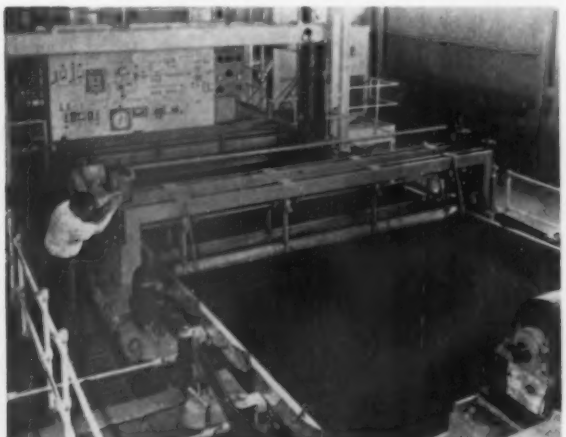
Characteristics of the wet board produced are varied, from low density of acoustical ceiling tile to the higher density of "Strong-Wall" insulating board.

Mixing of different grades of wood, allowing use of hardwoods and softwoods simultaneously, is possible with a dual refining system. Use of dense hardwoods, such as maple and birch, is a relatively new process. Indications are that eventually 60% or more of wood used at L'Anse may be hardwoods.

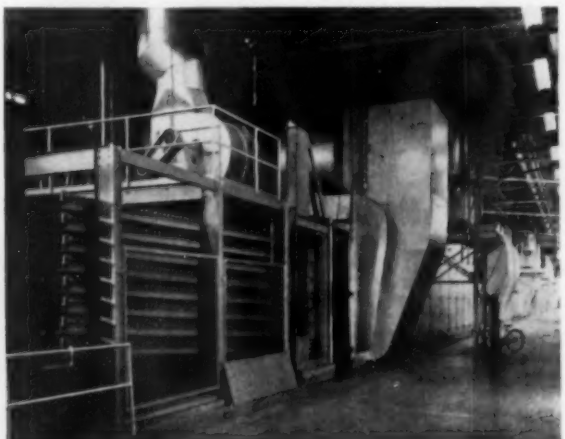
1 Cary-Lift takes large bite out of one of the 19-foot log piles and delivers it to beginning of the log chute. Conveyor at lower left logs to the chipper house. The yard will hold a 3-month supply of logs.



2 Operator controls entry of 8-foot logs into Carthage chipper from panel at left. Chipper, on floor below, converts 16-inch diameter log into chips in 10 seconds. Chips produced in 8 hours keep plant running 24 hours.



5 Liquid fiber mixture is fed on moving screen of Black-Clawson Fourdrinier machine. Operator makes adjustment prior to operation. Control panel provides data on board formation. Here, mixture is 98% water, which will be gradually drawn off until mixture becomes solid.



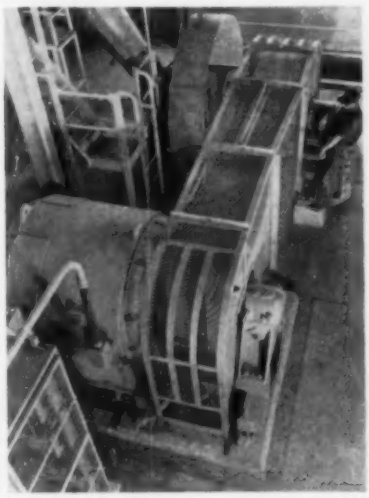
6 After being formed on Fourdrinier board machine, fiber mats are fed automatically into 8 different levels of 450-foot long dryer, emerging at far end as rigid fiberboard. Operator uses the bicycle to keep constant check up and down the length of dryer for blockages, etc.

Denser Hardwoods

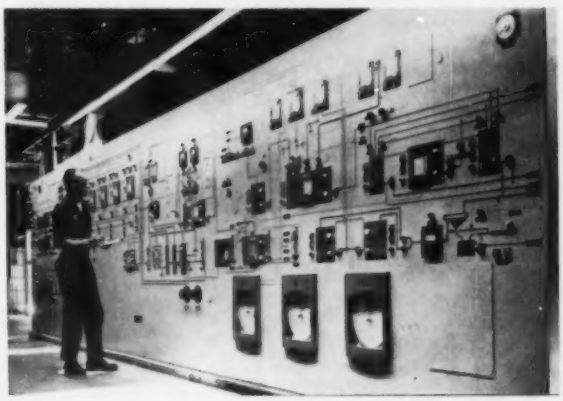
Consumption of water at L'Anse is far below normal for fiberboard.

Principal equipment. BLACK-CLAWSON Fourdrinier stock pumps, continuous ragger; HYDRA-PULPER conveyors; COE dryer loader, unloader and cutoff saws; MEREEN-JOHNSON primary saws; ALLIS-CHALMERS motors; G.E. dc motors; WESTINGHOUSE motors and control panels; REEVES motor reducers; AMERICAN defibrator; DAVENPORT presses and defibrators; STEINEMAN coaters; CLAFLIN refiners; BAUER refiners and bark abrader; LINK-BELT surge bins; DORR-OLIVER vacuum filter; MAXWELL-MANY 10-ton cranes; NASH HYTON vacuum pumps; CARTHAGE chipper; DILLON chip screens; JEFFREY chip conveyor; GOODYEAR belting; PETTIBONE-MULLIKEN Cary-Lift; FULLER CO. air system.

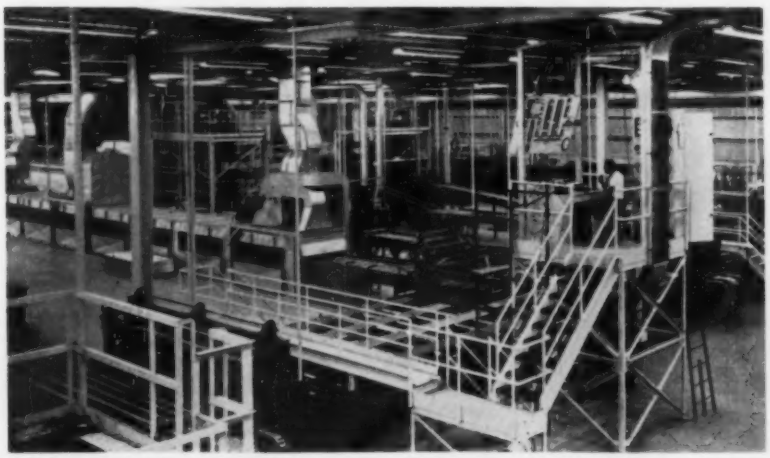
New insulating fiberboard plant is located on a 165-acre site, covers 260,000 square feet. Conveyor in right foreground carries logs to chipper house.



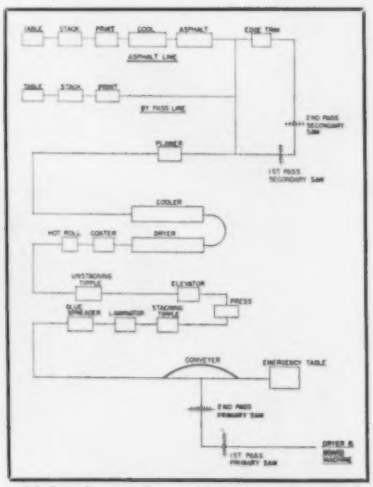
3 Operator uses hand brake to stop chipper blade prior to mechanical adjustment. The chipper, powered by 400-hp Allis-Chalmers motor, converts logs into 1/8- and 3/4-inch chips which are temporarily stored in two 24x50-foot silos.

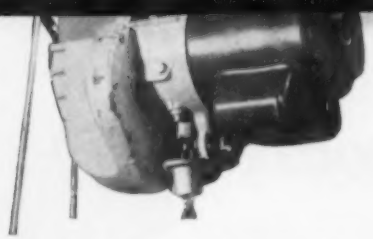


4 Pneumatic control panel automatically regulates the flow of raw material and water used. Red lights tell operator that all equipment is operating properly; white lights show him exact location of any trouble.



7 In fabrication section, man at control tower controls all operations. Lights on panel show production flow. Phone head-sets connect to any section of fabricating line. He also uses a plug-in intercom system. Operator sets up process flow he wants with alternatives: product may or may not go through laminating line, through paint line, pass through line which edges, planes, trims and asphalt coats and prints. Flow plan shows location of equipment and system hookup. ■ ■





New General Electric Gear Motor Center Offers WESTERN Industry

24-HOUR Gear-motor Shipment, Modification and Service

General Electric's new Gear Motor Center for mechanical power transmission products is now in full operation at San Francisco.

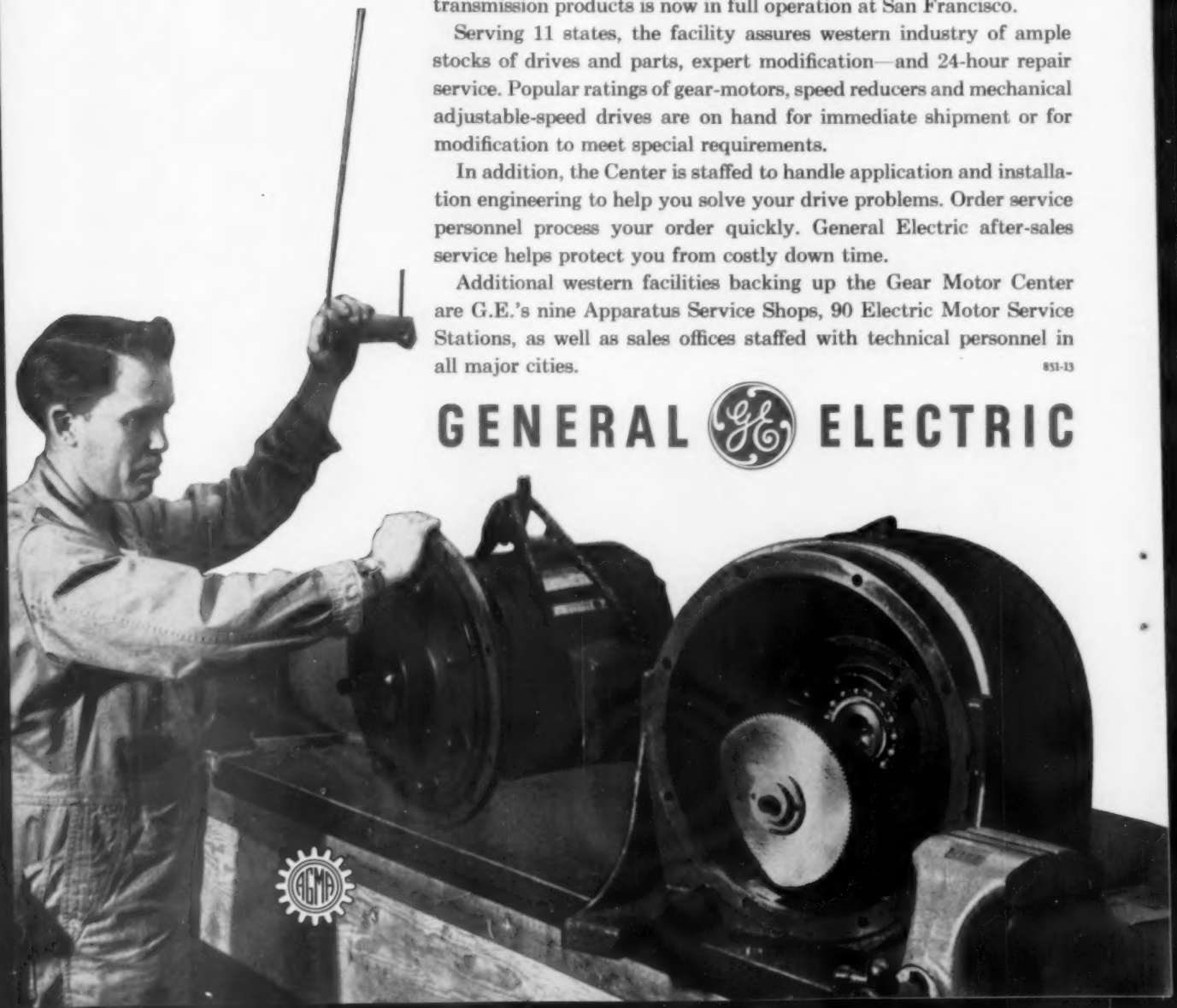
Serving 11 states, the facility assures western industry of ample stocks of drives and parts, expert modification—and 24-hour repair service. Popular ratings of gear-motors, speed reducers and mechanical adjustable-speed drives are on hand for immediate shipment or for modification to meet special requirements.

In addition, the Center is staffed to handle application and installation engineering to help you solve your drive problems. Order service personnel process your order quickly. General Electric after-sales service helps protect you from costly down time.

Additional western facilities backing up the Gear Motor Center are G.E.'s nine Apparatus Service Shops, 90 Electric Motor Service Stations, as well as sales offices staffed with technical personnel in all major cities.

851-13

GENERAL ELECTRIC



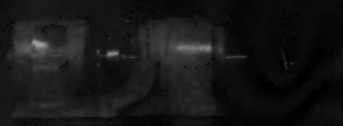
GENERAL ELECTRIC
OFFERS A *COMPLETE* LINE
OF LOW-SPEED DRIVES
1/8 TO 200 HP

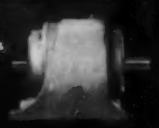
Select from General Electric's PLUS LINE of compact mechanical power transmission equipment! A full range of ratings is available—most directly from stock.

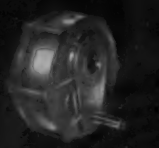
General Electric Polydyne® Drive

Integral-type Gear-motor

Right-angle Shaft Gear-motor


All-motor Gear-motor


Footed Speed Reducers


Shaft-mounted Speed Reducers

If you have a drive problem or want information on how G.E.'s Gear Motor Center can help you, write:

G. D. Tobias
Western Sales Manager
Gear Motor & Transmission Components Dept.
General Electric Company
1098 Harrison Street
San Francisco, California

or contact your nearest G.E. Apparatus Sales Office.

GENERAL ELECTRIC

RAW MATERIAL

(Continued from page 59)

can spell the difference between profit or loss in the overall operation.

While an integrated operation for board production from manufacturing residues appears quite attractive from a raw materials cost angle, other factors must be thoroughly investigated. The size of the plant must be carefully considered. It is possible that in certain locations the limited amount of residue would make the operation of a plant uneconomic. The question of markets is also an important consideration.

Use of forest residues in board manufacture can also play an important role in integrated use of the forest crop and, at the same time, can be an important aid in good forest management. Where board operations can provide an outlet for thinnings, forest management can be facilitated.

Development of mobile barkers and chippers which can be taken into the woods will also increase the contribution that the board industry can make toward integrated utilization.

Use of thinnings for board production is of particular interest in the management of plantation forests. Thinnings of a small diameter range (i.e., below 3½ inches) may be used, provided, of course, suitable equipment is available to process such material.

In assessing the role of board production as a tool in forest management, one must take into account the increased use of so-called lower grade raw materials by the pulp and paper industry. The industry is also rapidly extending its use of non-traditional species, such as temperate, broad-leaved species. While less and less distinction is being made between raw materials for pulp manufacture and board production, it is obvious that both industries can play an important part as a tool in forest management.

Research needs. Improved products are constantly appearing which are invading new fields. However, if this progress is to continue research must be expanded to make the different types of insulation board, hardboard, and particleboard more competitive and superior to alternative materials.

It will be desirable to study the possible use of so-called weed species, and more of the little used tropical hardwoods. Research is required on methods of pulping hardwoods, particularly by semi-chemical pulping techniques in connection with fiberboard manufacture. There is also a need for information on particle-producing properties of the denser wood species. In connection with cutting machines, it is, of course, desirable to continue to improve and develop equipment for conversion of many forms of solid wood residues into engineered particles.

There is a need for carrying out research on small operations to make use of smaller volumes of raw material economically.

There is urgent need for research into harvesting, handling transporting and storing such materials.

At the present time there is insufficient knowledge of use-criteria for boards. Promoting the use of a product for an application for which it is neither designed nor suitable, can have a retarding rather than accelerating effect on the progress of the entire industry. ■■

MACHINERY MEETING

(Continued from page 55)

that is possible with the new machinery.

• When applicable, explain the economics involved if the new equipment is not installed.

"Leasing is not a gimmick!" Robert Sheridan, president, Nationwide Leasing Co., Chicago, said, "Companies are leasing equipment today because it is more profitable to lease than to buy." Mr. Sheridan pointed out the following advantages of leasing:

• It avoids lost profit through reaction of working capital.

• It is flexible. Rentals can be paid on a convenience basis, rather than straight line.

• It provides the equipment when it is needed, not when it is convenient to buy it.

(See THE LUMBERMAN, January, 1960 for more on leasing.)

Speaking at the joint session, Leslie H. Geddes, executive vice-president of Greenlee Bros. & Co. and WMMA president, termed the first meeting of distributors and manufacturers a "blessed event." He said, "Born here today is a joint effort that can do much for our industry—through lines of communication to keep manufacturers advised of mechanical problems of machines and, conversely, the distributor needs to know what's going on at the suppliers' plants. It is time to stop and reappraise ourselves."

New Officers. President — James T. Donnolly, James T. Donnolly Co., Ltd., Toronto, Canada; Vice-president Robert J. Norwalk, Star Machinery Co., Seattle, Wash.; Treasurer — Robert C. Garrison, Garrison Machinery Co., Statesville, N.C.; Executive secretary — Marie H. Lawton, Philadelphia, Pa. ■■

Quick Quiz

for kiln operators

Here's a short quiz that'll tell you if you can profit from Standard's Modernization Plan.

Do you have:

1. direct-driven motors and fans?
2. uniform air movement throughout your kiln?
3. insulated aluminum doors?
4. hinged aluminum baffles?
5. automatic shut-off in case of power failure?
6. automatic control of all kiln conditions—heat, ventilation, humidity?
7. enough kiln capacity?

If you answer "no" to any of these questions, then investigate Standard's Modernization Plan —the plan that has increased output, improved quality and reduced drying time for hundreds of kiln operators—the plan that can boost your profits without major structural changes in your kilns. Write for it today.

STANDARD
DRY KILN COMPANY

STANDARD DRY KILN COMPANY
P.O. BOX 21008 • INDIANAPOLIS 21, INDIANA
8205 S. W. HUNZIKER • PORTLAND 23, OREGON

Veteran Ad Salesman "Olie" Olson, Retires

Retirement of J. B. Olson from the advertising staff of THE TIMBERMAN and THE LUMBERMAN, Portland, Ore., is announced by W. B. Freeman, president, Miller Freeman Publications, San Francisco, Calif. The effective date was September 30, 1960.

"Olie," as he is better known to his host of friends throughout the nation, has been with Miller Freeman Publications in an advertising capacity for 31½ years. Prior to that he served on the staff of THE TIMBERMAN, then published by the late George M. Cornwall. His total span of service to the logging and milling industry totals about 40 years.

Mr. Olson has been headquartered in Portland, Ore. Although officially retired from regular duty, his services will be available to Miller Freeman Publications on special assignments and for special projects.

Forest Products Journals Expand Ad Staff

Appointment of Harry C. Crist as district sales manager for THE TIMBERMAN and THE LUMBERMAN is announced by W. B. Freeman, president of Miller Freeman Publications, San Francisco, Calif.

H. C. CRIST

For the past several years Mr. Crist has been vice president-advertising director for C. C. Crow Publications, Inc. During the war he was a Lieut. Commander in the Navy.

Crist attended Hanover College, and graduated from Northwestern University. A native of Chicago, he has lived with his wife and son in Portland for the past 16 years. He is an active member of Riverside Golf and Country Club; Phi Gamma Delta; Oregon Advertising Club; Hoo-Hoo, among other civic activities.

New Labor-Management Relations Group Formed

Timber Operators, Inc. has been established to represent firms in Oregon, Washington, northern California and Alaska in labor-management relations.

Four employer groups were dissolved to form the new organization: Oregon Coast Operators, Willamette Valley Lumber Operators Association, Lumbermen's Industrial Relations Council, Plywood and Door Manufacturers Industrial Council and Oregon Coast Operators.

Executive secretary is Karl F. Glos, formerly manager of the Oregon Coast Operators. Loran L. Stewart, Bohemia Lumber Co., Cottage Grove, is temporary president. Initial membership totals 125, both large and small firms, and more are expected.

In addition to labor relations work, the group will engage in employee safety and research in industrial economics.

FOR BOATING'S
toughest jobs

Here's the power you want for the really tough jobs of commercial boating—Evinrude's 1961 Big Twin. Develops 40 hp at 4500 rpm. New, **foolproof** fixed-jet carburetion. Thermostat controlled engine for most efficient performance under all conditions. Fast-stepping, fuel-saving Cruis-Throttle. Amazingly easy manual starting. Choice of props to fit boat and work. Quieter-than-ever operation. Hard-working, smooth-running, load-lugging, long-lasting, sea-going power—at a price that makes it boating's standout value. If you're a boatman whose living depends on dependable power, the 1961 Big Twin is for you. See your Evinrude dealer—listed in the Yellow Pages under "Outboard Motors."

Evinrude Motors, 4143 N. 27th Street, Milwaukee 16, Wis
A Division of Outboard Marine Corporation
In Canada: Mfd. by Evinrude Motors, Peterborough

EVINRUDE
FIRST IN OUTBOARDS

CHAPMAN Sealtite is an inexpensive chemical formulation easily applied to the ends of logs and lumber to reduce end-checking. It seals the end grain of the wood. This prevents excessive moisture losses which often cause internal stresses and result in costly end checks and cracks.

Use of Sealtite is particularly important in getting full value from veneer logs and flitches, cross-arm blanks, squares, bolts, dimension and similar high quality stock. Sealtite is extremely stable in storage, clean, non-staining and non-abrasive.

Available in five brilliant colors, Sealtite has excellent merchandising value in identification of quality end-coated lumber products. Use it to get full value from logs and lumber.

CHAPMAN CHEMICAL COMPANY
Leading manufacturer of wood preservatives
Memphis, Tenn.
Palo Alto, Cal., Portland, Ore., Minneapolis, Minn.
Charlotte, N. C.

MAIL FOR COMPLETE DATA

Chapman Chemical Company
P. O. Box 138, Memphis 1, Tenn.

Send data on Sealtite to:

Name_____

Company_____

Address_____

KLAMATH MACHINE & LOCOMOTIVE WORKS INC.
P. O. BOX 68, UKIAH, CALIFORNIA, U. S. A.
Look for the Indian Head on all KLAMATH MACHINE *products*
Export Division: FRAZAR & HANSEN, Ltd.
381 Clay Street, San Francisco 11, California, U. S. A.

ENGINEERS • FOUNDERS • MACHINISTS
DESIGNERS and BUILDERS
HIGH GRADE SAWMILL MACHINERY

FOREST PRODUCTS STOCKS

NOMINAL QUOTATIONS

La Salle Securities Co., Investment Securities, 208 La Salle St., Chicago, Ill.

November 4, 1960

STOCKS	Paid 1959	This Month Bid	This Month Ask	Last Month Bid	Last Month Ask
Ambassador Oil, Com.	.....	3⅝	C	3⅜	C
American Forest Products, Com.	$ 1.00&S	26	29	27	29
Anderson Tully Co., Cap. Stk.	20.00	350	OW	350	OW
Atlas General Ind., Inc. Com.	.....	13⅝	C	14½	C
Atlas General Ind., Inc. $1.25 Pfd.	.....	25	27	26	28
Biles-Coleman Lbr. Co., Com.	*	18	OW	18	OW
Boise Cascade Corp. Com.	.60	14¾	16¾	15	16½
George E. Breece Lbr. Units	.05	2½	OW	2½	OW
British Columbia Forest Prod., Com.	.....	10½	C	10¼	C
Brooks-Scanlon, Inc., "A"	.80	17	20	19	OW
Brooks-Scanlon, Inc., "B"	.80	17	20	19	OW
Calaveras Land & Timber Co., Com.	2.00	23½	OW	24	27
Calcasieu Paper Co., Com.	1.50	30	OW	30	OW
Cascades Plywood Corp., Com.	1.75	22	24	25	28
Central Coal & Coke Co., Com.	1.00	31½	33½	30½	32½
Cherry River Boom & Lbr., Com.	.....	48	OW	50	OW
Chicago Mill & Lbr. Co., Com.	1.25	18½	19½	19¼	21¼
Cloquet Lumber Co., Com.	*	1	OW	1	OW
Consolidated Naval Stores, Cap. Stk.	30.00	1100	OW	1060	OW
Container Corp., Com.	1.00	22¾	C	21⅞	C
Container Corp., 4% Pfd.	4.00	91½	C	90½	C
Crossett Company, Class "A"	.65	38	41	39	42
Crossett Company, Class "B"	.65	38	41	39	42
Crown-Zellerbach, Com.	1.80	44¾	C	44	C
Crown-Zellerbach, $4.20 Pfd.	4.20	92	C	92	C
Curtis Companies, Com.	.....	6¾	7¾	6⅞	7⅞
Dierks Forests, Inc., Com.	5.00&S	152	OW	152	OW
Evans Products, Com.	.50	11⅜	C	11	C
Fordyce Lumber Co., Cap. Stk.	1.50	55	OW	55	OW
First Lumber Corp., Com.	.....	5¼	6¼	5½	6½
General Plywood, Com.	.....	13⅞	C	16½	C
Georgia-Pacific Co., Com.	.50&S	46½	C	46	C
Harbor Plywood, Com.	.40	23¾	C	22	C
Edward Hines Lumber Co., Com.	2.50	34	36½	34	36
Insular Lumber Co., Com.	1.25	11½	OW	11½	OW
International Paper, Com.	3.00&S	97⅜	C	85¾	C
International Paper, $4 Pfd.	4.00	93	C	92½	C
Keyes Fibre Co., Com.	1.20&S	14¼	15¼	14¼	15¼
Kirby Lumber Corp., Com.	2.00	50	52½	50	52½
Longview Fibre Co., Com.	3.50	82	86	82	86
Louisiana Central Oil & Gas, Com.	10.00	50	OW	50	OW
Louisiana Long Leaf Lumber Co.	5.00	157	OW	157	OW
Louisiana Sawmill Co., Com.	.....	½	OW	½	OW
MacMillan & Bloedel, "B" Com.	1.40	14⅛	C	13¾	C
McCloud River Lumber Co., Com.	4.00	80	90	90	100
McCloud River Railroad, Com.	3.00	40	OW	42	OW
Meadow River Lumber Co., Com.	*	225	OW	225	OW
Medford Corp., Com.	11.00	190	225	200	240
Mississippi Land Co., Cap. Stk.	1.60	12½	OW	12	OW
Northwest Paper Co., Com.	.15&S	23	26	23	26
O. & N. Lumber Co., Cap. Stk.	2.00	42	OW	42	OW
Olin Oil & Gas, Com.	2½ %S	18⅜	C	16⅜	C
Ozan Lumber Co., Com.	4.00	92½	OW	92½	OW
Pacific Lumber Co., Cap. Stk.	12.00	290	320	315	330
Pickering Lumber Co., Com.	.40	7¾	8¾	7¾	8¾
Pine Tree Manufacturing Co.	.....	50	OW	50	OW
Pope & Talbot, Inc., Com.	1.25	27	30	29	31
Pope & Talbot, Inc., Pfd.	.30	4¾	OW	4¾	OW
Potlatch Forests, Com.	1.00	42	44	43	45
Puget Sound Pulp & Tbr. Co., Com.	.80	21½	C	20½	C
Richmond Cedar Works Mfg., Com.	.....	⅝	1	½	1
Richmond Cedar Works, Com.	.....	¾	1⅛	⅝	1⅛
Roddis Plywood, Com.	.40&S	17½	19	17½	19
St. Regis Paper, Com.	1.40&S	31¾	C	31⅜	C
Southern Minerals Corp., Com.	.....	3	4	3¼	4¼
Southwest Forest Indust. Inc., Com.	.....	12½	14	12¾	13¾
Tremont Lumber, Com.	2.00	.....	OW	.....	OW
U.S. Plywood, Com.	2.25	44⅜	C	45¼	C
Union Lumber Co., Com.	1.40	45	55	53	58
United States Lumber, Com.	.35	4	5	3¾	4¾
Upson Company, Com.	.40	10½	11½	10	11
Weyerhaeuser Co., Com.	1.10	32½	34	32⅛	33⅝
Winton Lumber Co., Com.	1.00	15	OW	15	OW
Wood Conversion Co., Com.	.45	9¾	10¾	9¾	10¾
Wooduse, Inc., Com. (Now Fersolin Corp., Com.)	.....	⅝	1	¾	1
BONDS					
Georgia-Pacific Corp. Subordinated Deb., 5s due 1976	.....	88	93	89	94

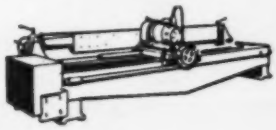
*—Information not available. BW—Bids Wanted. S—Stock. OW—Offerings Wanted. C—Last Sale on Exchange where listed or bid.

THE ABOVE INFORMATION, WHILE NOT GUARANTEED, IS OBTAINED FROM SOURCES WE BELIEVE TO BE RELIABLE

COE

VENEER MACHINERY

LATHES
CLIPPERS
DRYERS
KNIFE
GRINDERS



The **COE MFG. Co.**
Painesville, Ohio

Find out how RADER CUTS CONVEYOR COSTS

Write to: Rader Pneumatics, Inc.
1739 N. E. 42nd Ave., Portland 13, Oregon

RADER PNEUMATICS, Inc.

got a sawmill problem?

Corinth
can help you solve it

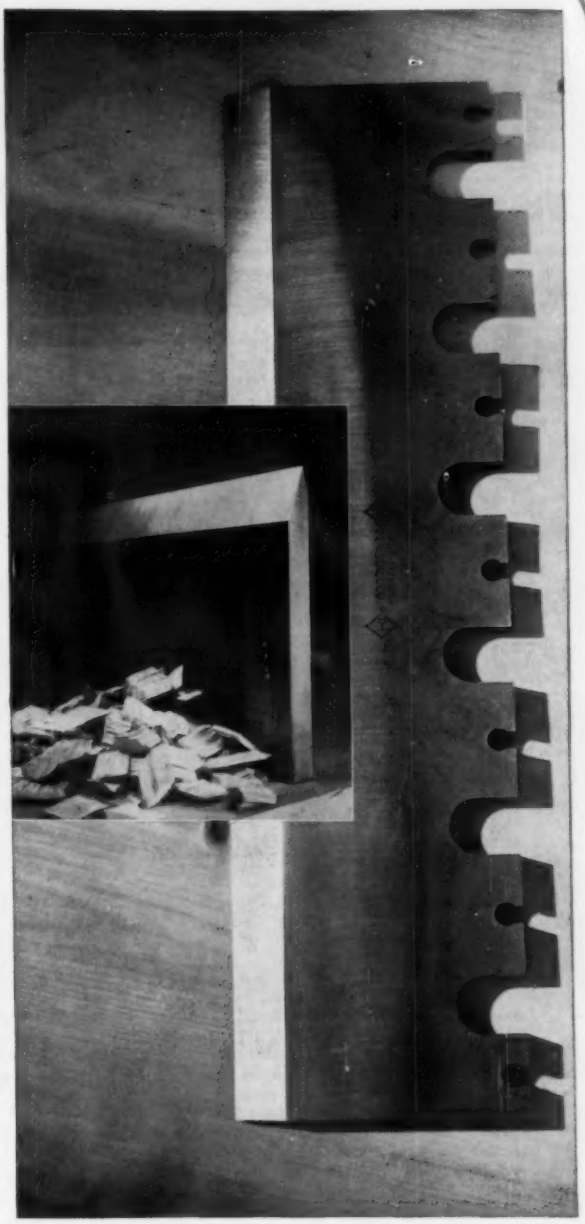
CORINTH AMERICAN MODERN SAWMILL MACHINERY

For the most modern sawmill machinery and equipment always look to **CORINTH-AMERICAN** . . . symbol of sawmill quality since 1904. Write or call us about your every sawmill problem.

CORINTH MACHINERY COMPANY
AMERICAN SAWMILL MACHINERY CO.
CORINTH, MISSISSIPPI
Export Sales Division, 30 Church St., New York 7, N. Y.

LAWSON'S
Creative Engineering
Saves You Time, Money and Labor
In Stacking, Unstacking and Lumber Handling
CALL, WIRE or WRITE for information, technical data, literature or the services of a trained engineer. There's no obligation, of course.

LAWSON STACKER CO., INC.
BOX 4813 • JA 7-3577 • MEMPHIS 7, TENN.



QUALITY KNIVES FROM HEPPENSTALL

HEPPENSTALL COMPANY
PITTSBURGH 1, PENNSYLVANIA
PLANTS: Pittsburgh, Pa.
Bridgeport, Conn. • New Brighton, Pa.

MIDVALE-HEPPENSTALL COMPANY
NICETOWN, PHILADELPHIA 40, PA.

Die Blocks • Forgings • Back-Up Roll Sleeves • Rings
Industrial Knives • Materials Handling Equipment
Pressure Vessels • Hardened and Ground Steel Rolls
Vacuum and Consumable Electrode Melted steels

Authoritative Guides for Foresters

■ FOREST MANAGEMENT

H. Arthur Meyer, Pennsylvania State University; **Arthur B. Recknagel**, St. Regis Paper Company; **Donald D. Stevenson**, Buckeye Cellulose Corp.; **Ronald A. Bartoo**, Pennsylvania State University

Ready in January. Second Edition of this highly successful book brings together a wealth of basic technical material and important data on recent advances in forest management. Book clearly describes fundamental considerations governing the organization and operation of forest properties for sustained yield. The subdivision of forests and their classification, as well as management inventories and the place of growth data in management planning are fully covered. Book discusses such specific problems as regulation of even-aged and uneven-aged forests, determining allowable cut, and the use of gross and net-yield tables. Includes actual forest plans for forests of various sizes in different parts of the country. *2nd Ed., 1961. 320 pp.; 98 ills., tables.* $8.50

■ PHOTOGRAMMETRY and PHOTO-INTERPRETATION

Stephen H. Spurr, University of Michigan

Second Edition of "Aerial Photographs in Forestry" covers all significant developments in the techniques of aerial photography, photogrammetry, and photo-interpretation. Book fully discusses basic principles and methods; brings together specialized material on the use of aerial photographs in vegetation mapping, forest inventory, and forest management. Abundant illustrations include helpful line drawings and recent aerial photographs, new photographic materials and photogrammetric equipment. *"Exceptionally interesting and instructive."* —**Soil Science.** *2nd Ed., 1960. 472 pp.; 170 ills., tables.* $12

■ FORESTRY HANDBOOK

Editor: **Reginald D. Forbes**, Consulting Forester; Staff Editor: **Arthur B. Meyer**, Editor "Journal of Forestry"

Famous Handbook organizes in workable form the essentials of forest management, silvics, silviculture, watershed management, and all other important related subjects. 23 indexed sections cover logging, fire prevention, forest insects and diseases, surveying, forest road engineering, etc. *"There is no other publication having so complete a coverage of practical data."*—**Journal of Soil and Water Conservation.** *Edited for the Society of American Foresters. Board of 146 Editors. 1955. 1,201 pp.; 774 ills., tables.* $15

USE THIS COUPON TO ORDER

Please send books checked below:

- ☐ **Forest Management**, 2nd Ed., Meyer et al $8.50
- ☐ **Photogrammetry and Photo-Interpretation**, 2nd Ed., Spurr $12.00
- ☐ **Forestry Handbook**, Forbes-Meyer $15.00

☐ Charge my account ☐ Send COD
☐ Check enclosed

Name .....

L-4

Address .....

City ..... **Zone** ..... **State** .....

THE RONALD PRESS COMPANY
15 East 26th St., New York 10

Douglas Fir Plywood Association

Plywood Sales Gain but can't keep up

More promotion, marketing and quality are needed,

Why the plywood industry will move ahead was well demonstrated at the recent annual fall promotion meeting of the Douglas Fir Plywood Association in Portland, Ore. Frank discussion of present problems and planning for future sales to handle increased promotion were presented.

New sales for the first nine months of this year were reported by association president C. Henry Bacon, Jr., executive vice-president of Simpson Timber Co. of Seattle, Wash. He said that sales were 3% ahead of last year for the first nine months in spite of a 16 to 18% decrease in housing starts. On the other hand, orders lagged behind production as the 1960 production capacity is ending up at 9.2 billion square feet. Projected 1961 total capacity will be 10 billion square feet Plywood plants will have increased from 127 in 1958 to 159 plants by the end of 1961 in the Douglas fir region.

"We can maintain a reasonable profit in our business," Mr. Bacon said, "if we go about it right. At present we have reached a plateau in demand, but we do not have to stay there."

He presented the industry's major problems as these:

- Need to increase sales
- Competition with other materials
- Association financing
- Improving quality and grading standards
- Strengthening of all promotion efforts

"These," he said "can be solved but they are going to require better marketing than we have ever achieved before and a united effort on the part of all fir plywood manufacturers." At present about one-third of the industry members are not subscribing members of the promotion program and today no one can afford to-go-it-alone in research and marketing of the basic products. At present, DFPA has 81 men in the field and is spending over $5.5 million in promotional efforts. Mr. Bacon pressed the challenging bid for stronger and more unified industry efforts for greater marketing development.

Problem "Y Veneer" grades have been under study by the technical department of DFPA. An answer is believed to be in a new farm grade probably to be called "Ag-ply," for underlayment and other general non-stress uses on the farm. "This could absorb the majority of this type of material at a profit," said Mr. Bacon.

Most urgent need to move the plywood industry ahead today and tomorrow is for increased cooperative effort—more promotion and more research.

Looking at the future, Mr. Bacon offered two projections, one by a large plywood firm and the other by American Marietta Co. (See THE LUMBERMAN, May, 1960.) One set the market at 15.7 billion square feet by 1970 and the other at 16 billion square feet by 1975. "Both have one thing in common," Mr. Bacon stated, "they assume that the plywood manufacturers will continue to support cooperative research and promotion."

The marketing concept has been basic to DFPA outlook since its inception, association executive vice-president, W. E. Difford, said. He outlined as some of the major merchandising projects ahead: increased promotion on components through Plywood Fabricators Service; increased effort on the second home; mobile

with increasing output.

industry leaders report.

homes; retirement homes; public and commercial uses; portable schools and libraries; new design in plywood construction.

However, Mr. Difford made it clear that the industry must maintain DFPA quality standards and must become merchandisers rather than order-takers. "Think what you want to make," he challenged, "and then make it available."

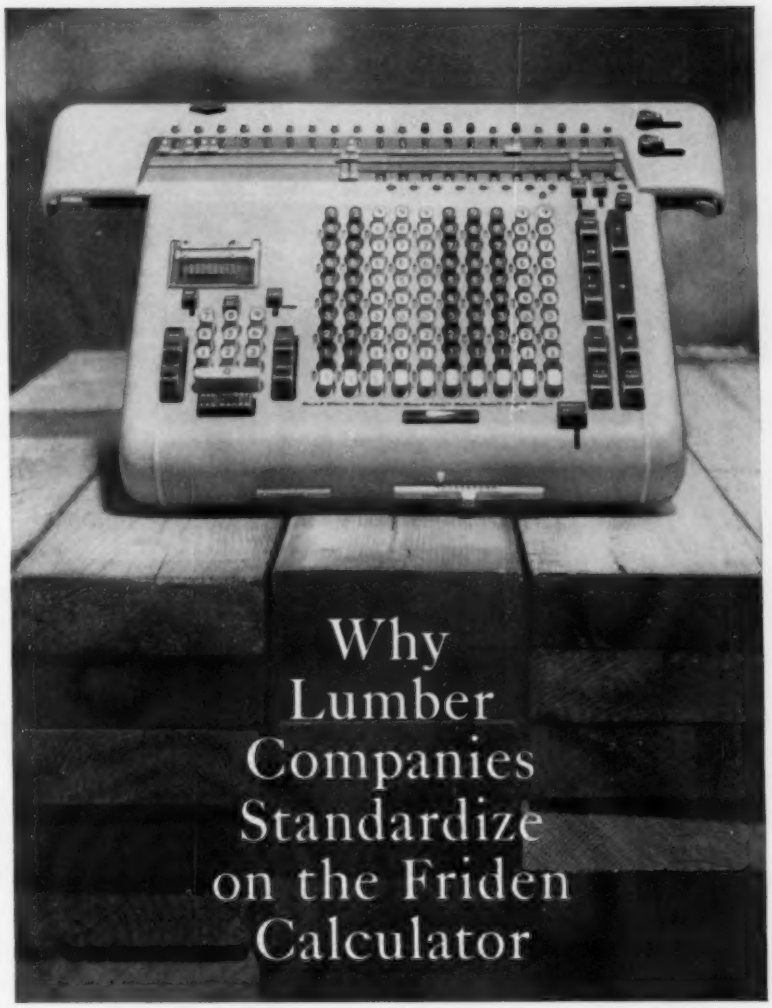
Housing starts will increase about 8% over today during 1961, Mr. Kenneth Kramer, managing editor of BUSINESS WEEK believes. He stated that housing starts growth will not be spectacular, but will be in a steady incline until 1965 when we can expect more booming tendencies with World War II babies becoming of age. The general economy is reasonably good this year, Mr. Kramer stated. Disappointment has come only to those who did not correctly measure unrealistic predictions. He stated that the gross national product will be $505 billion this year and will increase slightly during 1961, just as it has since 1955.

OBITUARIES

PHILIP H. W. CREDEN, 57, nationally known lumber executive, died October 6 in Golf, Ill., apparently of a heart attack. Mr. Creden was director of advertising and public relations for Edward Hines Lumber Co., Chicago. He worked as a newspaper man in his early years and joined Hines in 1938 to direct the company's advertising.

ERNEST LYNN KURTH, pioneer southern pine lumberman and forest industrialist, died October 26 at Lufkin, Tex. He was 75 years old. Mr. Kurth rose from bookkeeper to president of the Angelina County Lumber Co., Keltys, Tex. He was one of the pioneer forest managers whose foresight 50 years ago is responsible for the South's record in reforestation. He gave the nation its first newsprint mill to manufacture paper from Southern Pine. He was a founder and past president of the Southern Pine Association.

● L. C. Nelson has been named president of Camac Veneer, Inc., Eugene, Ore. He was vice-president and general manager and will continue to serve as general manager.



Why Lumber Companies Standardize on the Friden Calculator

Lumber calculations are complicated. Yet the Friden sails through them like a power saw through soft pine. The reason is simple: Friden is fully automatic. It *thinks* its way through, *remembers* factors, *leads* the operator. *(And what the machine does automatically, the operator can't do wrong.)*

Get the full story from your Friden Man. In ten short minutes, he can show you why the Friden SBT Calculator is aptly called "The Thinking Machine of American Business." See for yourself why the Friden has become standard equipment in so many lumber companies throughout the nation.

THIS IS PRACTIMATION: Automation at the source. Automation so hand-in-hand with practicality there can be no other word for it.

SEND FOR THIS FREE BOOKLET: "LUMBER CALCULATIONS MADE EASY"
... 22 pages of immediately useful figuring facts for lumbermen. Write: Dept. L, Friden, Inc., San Leandro, California.

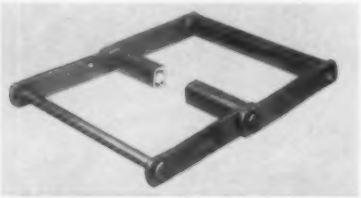
© 1960 FRIDEN, INC.

Friden Creates A New World For Business®

Friden

SALES, INSTRUCTION, SERVICE THROUGHOUT THE U.S. AND THE WORLD

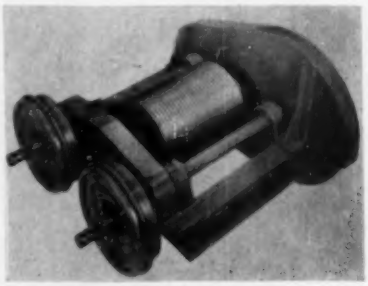
MACHINERY • SUPPLIES



New Welded Steel Drag Conveyor Chain

Specifications. Link-Belt welded steel chain is designed for high impact and tensile loads and easy maintenance. It operates on the same sprockets as H malleable iron and H combination drag chains. It is available in four sizes: 6- to 8-inch pitch in widths from about 7 inches to about 16 inches. Links are symmetrically designed from identical sliding area top and bottom which permits turning the chain over for added service life. Construction features include medium high carbon steel sidebars, sturdy pins and new barrel design. Chains can be easily reworked in the field.

Manufacturer. Link-Belt Co., Dept. PR, Prudential Plaza, Chicago 1, Ill.

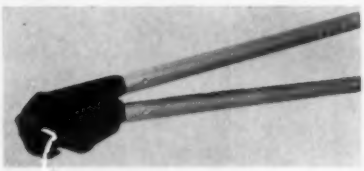


New Feed Works Designed For Light Carriages

Advantages. Compact design of the feed works makes it easy to install on any lightweight or portable carriages either below the tracks or at either end of the track.

Specifications. The unit operates up to a maximum of 25 horsepower at 250 RPM input shaft speed. Control is by a conventional carriage feed lever. High degree of response and feel is achieved by clutch control through hydraulic master cylinders. It is adaptable to any power source and can operate off line shafts, gearhead electric motors or diesel engines. It is built to Selectric quality standards. Extra heavy duty 13-inch clutches pick up power for driving the cable drum.

Manufacturer. Mill Equipment, Inc., 5219 First Avenue South, Seattle 8, Wash.

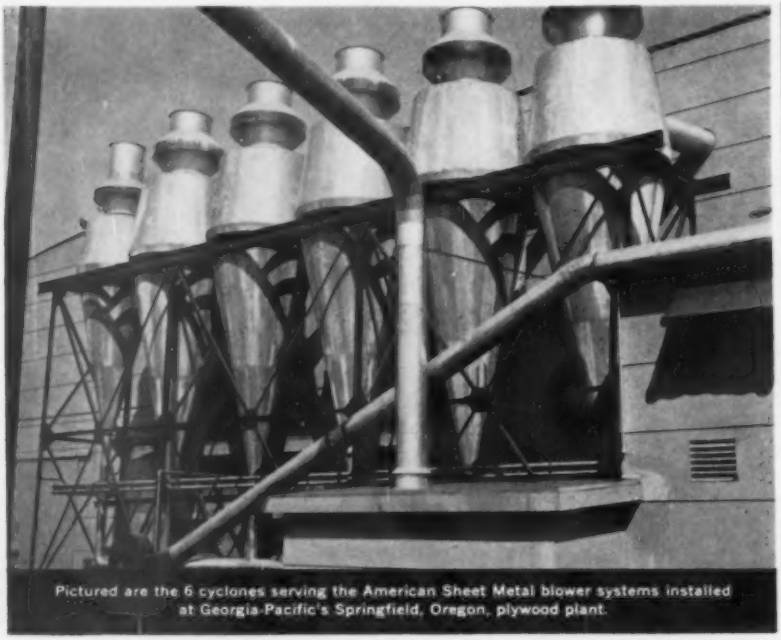


New Sealers Secure Stronger Joints

Advantages. Sealers secure stronger joints using shorter and lighter sealers.

Specifications. Both sealers, the B-1435 pictured above, for 1¼-inch strapping, and the UB-250 for 2-inch strapping, incorporate Signode's "Sure Seal" device. This mechanism requires that the sealing stroke be properly completed before the sealer can be released from the strapping, thus virtually eliminating any possibility of miscrimping. Improved crimping makes stronger, safer joints; lighter weight and shorter length makes the tools easier to handle.

Manufacturer. Signode Steel Strapping Co., 2600 North Western Avenue, Chicago 47, Ill.



Pictured are the 6 cyclones serving the American Sheet Metal blower systems installed at Georgia-Pacific's Springfield, Oregon, plywood plant.

American Sheet Metal efficiency isn't news to Georgia-Pacific

The management of giant Georgia-Pacific has long been familiar with American Sheet Metal's efficiency. As in many earlier installations, American Sheet fabricated the low pressure blower system at Georgia-Pacific's new addition to its Springfield, Oregon, plywood plant.

In all, American installed 8 major blower systems at the Georgia-Pacific Springfield plant, utilizing over 1 mile of pipe. Sander dust, for instance, is conveyed 1,000 feet to the boiler room for direct firing.

When again you are faced with a problem involving sheet metal do as the leaders of the plywood industry do. Call in American Sheet Metal Works. Prices are competitive.

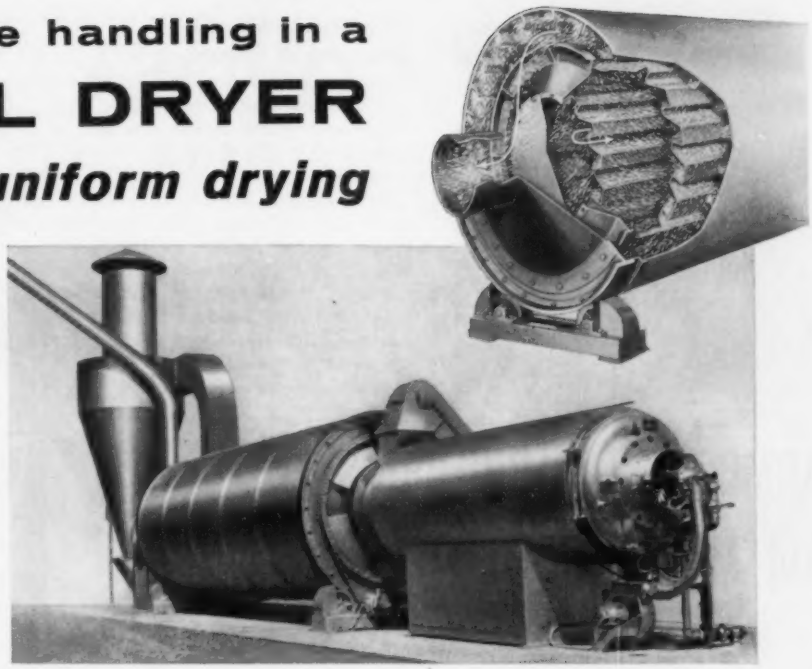
AMERICAN MEANS EFFICIENCY

AMERICAN SHEET METAL WORKS, Inc.
Manufacturers of Blowers
920 NE Glisan Portland, Oregon BE 2-0111

Particle handling in a

HEIL DRYER

means fast, uniform drying



Regardless of size, each particle is flash-dried to the same low, uniform moisture content in a Heil dryer. A 3-pass drying drum assures accurate moisture control in the finished product. Small particles move quickly through a stream of hot air to cooler zones, while heavier particles with more moisture move more slowly. Compound showering flights on each of the three cylinders keep particles moving evenly—no surging.

The result: fast, uniform drying—high production at low operating costs. You can depend on a HEIL! Why not check for yourself? Wire, write or call for complete details.

THE HEIL CO.

3000 W. Montana Street • Milwaukee 1, Wisconsin

MANUFACTURERS OF THE ARNOLD DRYER

Change *COST* to *PROFIT*—

Get the Correct Carthage Wastewood Chipper for YOUR Requirements

Carthage 39" Chipper produces maximum percentage of chips to desired length—minimum fines. Available for gravity discharge or blowing in any direction. Horizontal feed spout for easy handling of long pieces.

Change disposal expense to clear profit. Convert your waste slabs, edgings and small rounds to high quality chips. There's an efficient Carthage Wastewood Chipper exactly suited to your needs.

CARTHAGE MACHINE COMPANY
CARTHAGE, NEW YORK

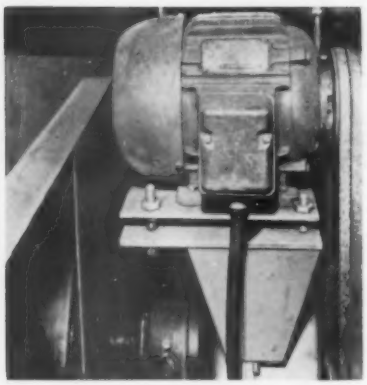
E. L. CROWLEY
3224 N. Fulton Ave.
Hapeville, Ga.
POplar 6-9858

HYMAN SUPPLY Co.
Wilmington, N. C.
ROger 2-5294

MACHINE PRODUCTS CO.
1625 Forrest Ave.
Gadsden, Ala.
Liberty 7-1121

RAY SMYTHE CO.
511 Park Bldg.
Portland, Ore.
CApitol 3-0502

THE CHESAPEAKE SUPPLY & EQUIPMENT CO.
Forest and Railroad Ave.
Dover, Del. REdfield 4-5991



New Device Simplifies Mounting of Motors

Advantages. Eliminates need to design and construct motor base and foundation; motor can be mounted in almost any position and maintenance is simplified.

Specifications. The compact, all-steel pre-drilled weldments allow mounting of any rerated NEMA motor (½ to 30 horsepower) directly to Falk shaft-mounted, flange-mounted and screw conveyor drives. Used with Falk shaft-mounted, flanged-mounted and screw results in zero reaction from belt pull at headshaft bearings. Adjusting screws provide a quick and convenient method of tensioning V-belts.

Manufacturer. The Falk Corp., Box 492, Milwaukee 1, Wis.

ARMCO STEEL BUILDINGS Aid Mill "Up-Dating" Program

New steels are born at Armco

To keep pace with expanding business, owners of the C. M. Christiansen Co., of Phelps, Wisconsin, started a progressive up-dating program, which includes six Armco Steel Buildings to date.

These six Armco Buildings, ranging in size from 16 x 18 x 8 feet to 60 x 200 x 12 feet, total more than 21,600 square feet of unobstructed floor space for production and storage.

To see how precision-made, ready-to-erect Armco Steel Buildings can give you these advantages now and provide for future expansion, write or call today. Armco Drainage & Metal Products, Inc., 2180 Milvia Street, Berkeley 4, California or P. O. Box 751 Federal Station, Portland 7, Oregon.

ARMCO DRAINAGE & METAL PRODUCTS

Subsidiary of ARMCO STEEL CORPORATION

OTHER SUBSIDIARIES AND DIVISIONS: Armco Division • Sheffield Division
The National Supply Company • The Armco International Corporation
Union Wire Rope Corporation

Long Life Claimed For Thin Planer Knife

Advantages. Manufacturer says new "Si-Clone" thin planer knives will run twice as long without jointing as ordinary knives.

Specifications. A new special analysis steel is used to produce knives with exceptional edge-holding ability, even when working knotty lumber or wood where grain has a tendency to rise. Knives will work on all types of timber and in any planer head location. Available in balanced pairs.

Manufacturer. Simonds Saw & Steel Co., 470 Main Street, Fitchburg, Mass.

Lift Truck Has 4-Foot Hydraulic Forward Reach

Specifications. The Cary-Lift Super 7 can reach over low stacks of lumber and remove material from high stacks, and because of the absence of a mast, it works easily through low doors of warehouse ceilings since the entire load is of a free-lift nature. It is a 7000-pound unit and has a lifting height of 13 feet, 6 inches.

Manufacturer. Pettibone Mulliken Corp., 4700 W. Division St., Chicago,

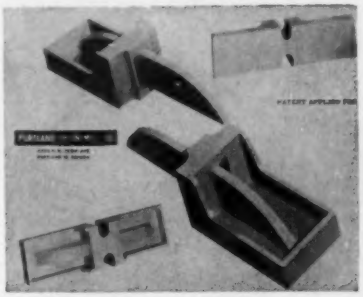
PORTLAND CHAIN'S

Patented

"PORTALLOY FLIGHT"

EASY INSTALLATION . . .
SECURE FASTENING . . .
MAXIMUM STRENGTH . . .

"PORTALLOY is to chain as COPENHAGEN is to "snoose"



PORTLAND CHAIN MANUFACTURING CO.

4000 N.W. Yeon • Portland, Oregon • CApitol 8-9219

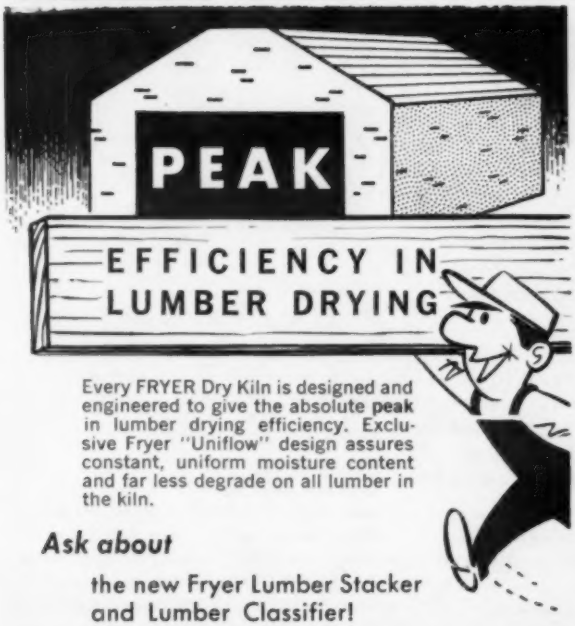
CLAYTON "STEAM ON DEMAND" SPEEDS PLYWOOD PRODUCTION

The Clayton steam generator maintains constant uniform press temperature throughout curing cycle. Gives instant response to load demand — with no platen temperature fluctuations, no time loss for temperature recovery. "Steam on demand" means faster production, fewer rejects. For details, write to:

Clayton MANUFACTURING COMPANY

415 461 N. Temple City Boulevard, El Monte, California

Supplied, Engineered, Installed and Serviced in the Pacific Northwest by A. W. Mortenson Company • Portland: 1117 S. E. Morrison, BE 5-3165 • Seattle Office: 1016 First Ave. S., MAin 3-5006.



Every FRYER Dry Kiln is designed and engineered to give the absolute **peak** in lumber drying efficiency. Exclusive Fryer "Uniflow" design assures constant, uniform moisture content and far less degrade on all lumber in the kiln.

Ask about

the new Fryer Lumber Stacker and Lumber Classifier!

FRYER DRY KILNS:
AVAILABLE COMPLETE • READY TO OPERATE • UNDER 1 CONTRACT PRICE

FRYER DRY KILN COMPANY

6621 N. St. Louis • AVenue 6-1606 • Portland, Ore.

Don't overlook these ways to cut production costs!

OK BATTLE AXE CHIPPER KNIVES

. . . always deliver maximum production of uniform cookable chips.

Also available:
OK Hog Knives • Veneer Knives • Planer Knives

THE OHIO KNIFE CO.
CINCINNATI 23, OHIO

You don't pay the man who isn't there

Engineered to Cut Costs

CORLEY
SAWMILL MACHINERY

CORLEY MANUFACTURING CO., CHATTANOOGA, TENN.

New Lift Truck Designed For Outdoor Projects

Specifications. The CY 20 is a 2000-pound capacity unit, gas powered, and equipped with pneumatic tires: 6.50 by 10 drive and steer tires mounted on a 54-inch wheelbase. Dual drive tires and wide profile tires (23 by 8.00) for extra flotation are optional. Power plant is a 49-hp engine with a displacement of 162 cubic inches. It develops 123 pound-foot torque. Two transmissions are available; Hydratork, Clark's power-shifted automatic transmission is standard. A companion model, the CRY 20, has a standard transmission with an 11-inch diameter, double faced, single disc, dry plate clutch. Lift speed loaded is 74 fpm.

Manufacturer. Industrial Truck division, Clark Equipment Co., Battle Creek, Mich.

a must for mills installing DEBARKERS

MODERNIZE your carriage with Wheland's NEW Sturdi-36" Air Dog

This new Wheland air dog can be bolted on existing knees on most sawmill carriages. The carriage could then handle debarked logs. This dog is standard equipment on Wheland's Sturdi-30 Carriage.

The Sturdi-36" Air Dog will dog a 36" log or down to a 4" cant. It has extra wide non-defacing upper bits with straight line action plus tong type lower bit.

The linkage is through pre-stressed neoprene bushings. This, plus full oscillating air cylinders, mechanically cushioned and air cushioned, adds greatly to dependability and serviceability.

These dogs can be operated with air controls or with solenoid actuated air valves. Only one air line and control cable to each dog. A new simplified Sel-Set setworks can be furnished for remote control if desired.

This is NEW from Wheland but it is THOROUGHLY TESTED. Details on request.

Authorized Distributor for Sel-Set Carriage, Edger, and Resaw Remote Control Setworks.

Sel-Set

WHELAND

THE WHELAND COMPANY

CHATTANOOGA, TENNESSEE—PHONE AMherst 5-3181

MANUFACTURERS OF COMPLETE SAWMILLS AND AUXILIARY MACHINERY

Goodyear Tire & Rubber Adds New Idler Sleeve

Application. Designed to increase flexing of conveyor belts to remove unwanted accumulations on return flights.

Specifications. The Sta-Kleen Dubl-Tread idler sleeves come in three wall thicknesses for various applications. The sleeves are fabricated to the same diameter as idler rolls for ease of application and long life.

Manufacturer. Goodyear Tire & Rubber Co., 500 South Main Street, Akron, Ohio.

Outboard Motor Fuel Available Pre-Mixed

Advantages. Eliminates chore of measuring and mixing oil and gasoline from separate containers.

Specifications. The fuel is a blend of Chevron gasoline and new RPM Outboard motor oil. It is especially tailored for all 2-cycle engines. The fuel will not separate. It cleans rings, pistons, exhaust ports and keeps moline from separate containers.

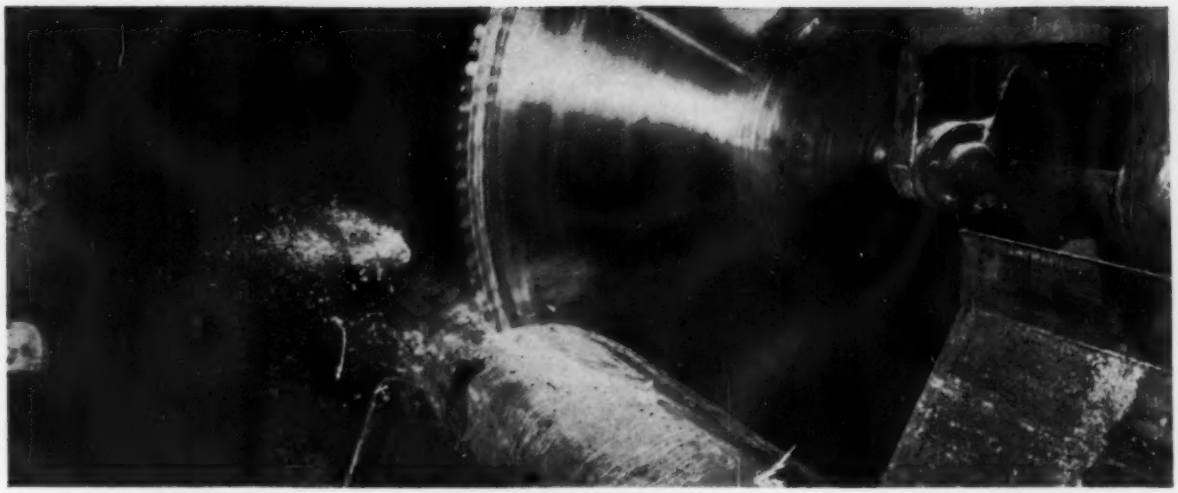
Manufacturers. Standard Oil Company of California, 225 Bush Street, San Francisco 20, Calif.

Micro Switch Announces Bounce-Free Switches

Advantages. Eliminates spurious voltage pulses caused by contact bounce.

Specifications. The new switches (1PB2000 series) were developed for use with high speed electronic components that operate in less than 1 microsecond (.000001 second). One of the switches produces a positive voltage output with resistive loads from 100 to 500 ohm; another produces voltage output from resistive loads over 500 ohm; the other two produce negative output voltages with these same resistive loads. The devices include a compact circuit package with the mechanical switch to produce a pulse-free voltage output in pulse and digital systems.

Manufacturer. Minneapolis-Honeywell's Micro Switch Div., Freeport, Ill.



BOTTLENECK?

Have you found that with modern "speed-ups" your sawmill deck is holding up profit-making production? Many mills faced with this problem have switched to SPEAR & JACKSON "IT*" Saws. Engineered expressly for fast, clean cutting and made from alloy steels incorporating the new "Matthew" temper, they are a must for any efficient operation.

SPEAR & JACKSON

"The Saw Without a Flaw"

Eugene, Ore., U.S.A.

* *Inserted Tooth*

SG-123A

STACKED BY HAND . . . . STACKED BY

At first glance it's easy to see the obvious advantages of automatic stacking over hand stacking—but it's what you DON'T see in the above illustration that really counts! Savings on labor, fewer losses from unnecessary degrading, better sticker alignment and uniform spacing for better lumber drying—all "hidden features" of Moore Stackers that mean ultimate profits for you.

MOORE MODERN METHODS

MOORE DRY KILN COMPANY

JACKSONVILLE FLORIDA · BRAMPTON ONTARIO · VANCOUVER BRITISH COLUMBIA · NORTH PORTLAND OREGON

World's Largest Manufacturers of Drying and Handling Systems for Lumber and Veneer

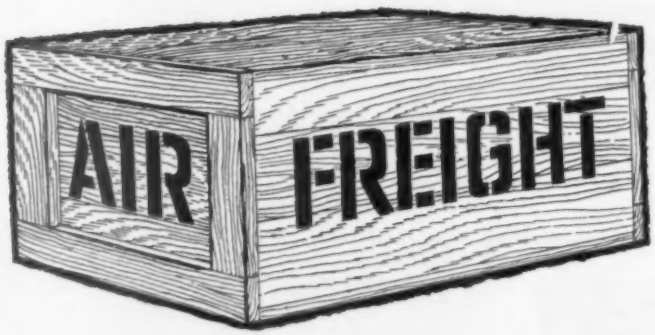
Yours for the Asking

FLEXIBLE CUSHION COUPLINGS. Two new types of Dodge Para-flex flexible cushion couplings, one for high speed, high torque application and another for attachment to flywheels of internal combustion engines, are described in a 20-page bulletin, No. 901, available from Dodge Manufacturing Corp., Mishawaka, Ind.

SUBMINIATURE SWITCHES. A two-page data sheet discussing the highly sensitive 11SM401 subminiature switch, designed for use where close control sensitivity or response is mandatory, is available from Micro Switch, division of Minneapolis-Honeywell Regulator Co., Freeport, Ill.

PARALLEL SHAFT SPEED REDUCERS, a 36-page booklet describing Link-Belt's redesigned and expanded line of 57 sizes of parallel shaft reducers is available from Link-Belt Co., Dept PR, Prudential Plaza, Chicago 1, Ill., ask for Book 2719.

NEWS IN GLUES consists of 11 general and technical papers covering new developments in adhesive technology as related to the manufacture of wood products and is available from Department H, The Borden Chemical Co., 350 Madison Avenue, New York 17, N.Y.



Ship Via WCA AIR FREIGHT

Over 14 Years Experience
serving the
Pacific West
Connecting over 60 cities

Modern jet-age service with the F-27 Prop-Jet

WEST COAST AIRLINES

Christmas Cards Printed On Treated Wood Sheets

Yankee Artists, Keene, N. H., has developed a line of Christmas cards in which contemporary, pictorial and religious Christmas messages are printed on SilkWOOD, a lightweight, silky textured wood imported from South America. After the wood is processed in thin sheets, it is treated to reveal the full beauty of wood. A silk screen process is used for reproduction because of its high color potential and hand painted effect. Cards are packed a dozen to a box.

PERSONALITIES

BRUCE FITZWATER has joined Fryer Dry Kiln Co. as manager of its materials handling division. He will head up all activities pertaining to mechanization of log and lumber handling. He was formerly associated with L-M Equipment Co. and Hyster Co.

B. Fitzwater

W. E. Essery

WILLIAM E. ESSERY is new manager of sales administration, Coated Abrasives division, Armour Alliance Industries. He was formerly assistant sales manager for the Mid-West Abrasive Co.

TED L. CROMER has been elected president and general manager of the Top Line Equipment Co., franchised sales and service dealer in Oregon for Clark Equipment Co.

FRED J. EBELING has been named director of sales for Dodge Manufacturing Corp., Mishawaka, Ind., following the retirement of HARRY A. TORSON, vice-president in charge of sales. Ebeling has served as general sales manager of Dodge since 1952.

F. J. Ebeling

M. J. Scott

E. V. Prentice Co., Inc., has appointed MARVIN J. SCOTT sales manager of the newly formed Manufacturer's Representative division of the company. Working with Scott as salesmen will be H. L. BEANE, JIM SMELLIE and D. L. MCGEE.

WARNER G. FOSTER has been named factory sales and service representative in the southern Oregon-northern California area for Republic Electric & Development Co. He will headquarter in North Bend, Ore.

W. G. Foster

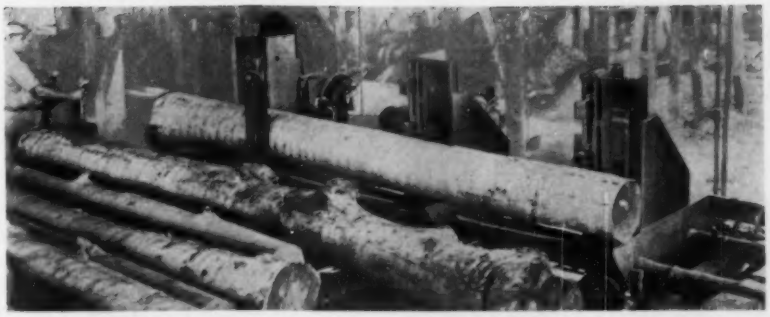
W. A. Mitchell

Three promotions have been announced at G. M. Diehl Machine Works, Wabash, Ind. WILLIAM A. MITCHELL, formerly with Berthelsen Engineering Co. and Bell Machine Co., becomes general sales manager. LARRY OLMSTEAD is promoted to secretary and assistant treasurer and ROBERT G. MILLER has been named chief engineer.

New members of the staff of Power Transmission Products are WARREN ERICKSON who has several years of experience in logging and lumbering in Minnesota, Montana, Washington and Oregon, and BERNARD CHILQUIST who for the past five years has been associated with Chain Gear Co. Erickson will work in engineering, Chilquist in sales.

DON T. HANBERY has been appointed manager of a new Falk Corp. district office in Minneapolis, Minn.

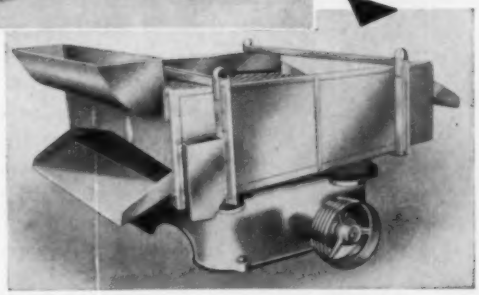
WINTON A. VAGEDES, with Norton Co.'s abrasive division since 1953, has been named district manager in Cleveland, Ohio.



WHELAND STURDI-30 CARRIAGE working at the J. T. Goethe Lumber Co., Dunnellon, Fla., is equipped with a new Sel-Set remote control electronic setworks, Sturdi-36-inch air dog, Wheland 3-arm log stop and loader and Wheland's newest model low mill nigger. Sturdi-36-inch air dog has extra wide non-defacing upper bits with straight line action plus tong type lower bit. It will dog 36-inch peeled log or 4-inch backing board. Headblock, knee, base, dogs and actuating mechanism, axle and trucks are precision built into one sturdy modular unit. These units cushion the loads and transmit them direct to the rails.

CS-90
20 cords/hr.

CS-35
10 cords/hr.



BOTH SIZES FEATURE:

- Horizontal-Rotating Action
- Double Sawdust Elimination *(a Soderhamn exclusive)*
- SKF Bearings Throughout
- Soderhamn's Guarantee of Performance

Built for top day-in, day-out performance, long life and economical operation, these Soderhamn Screens are meeting specifications in more than *60* installations throughout the nation — 14 on the West Coast. Users are enthusiastic about the high output and efficient cleaning and the exclusive Soderhamn double sawdust elimination feature. Investigate these machines for your mill.

Literature available — write for 4-page folder No. 750.

SODERHAMN MACHINE MANUFACTURING COMPANY

9442 S.W. Barbur Blvd., Portland, Oregon
Talladega, Alabama

LUMBER PRICES

Douglas Fir

1x8	Utility S4S KD	$ 40- 45
2x4	Construction Dimension S4S KD	80- 82
1x4	C&Br VG flooring KD	180-185
1x6	C&Br Drop Siding KD	155-160
1x6	C&Br S4S KD	170-175
1x8	C&Br S4S KD	160-165
1x10	C&Br S4S KD	160-165
1x12	C&Br S4S KD	215-229
Construction Timbers and Plank		
3x12	6-20 feet	$ 89- 92
3x12	22-24 feet	92- 95
3x12	26-32 feet	97-100
4x4	8-20 feet	87- 90
4x4	22-24 feet	90- 93
4x4	26-32 feet	97-100
6x6	8-20 feet	87- 90
6x6	22-30 feet	91- 94
6x6	32-40 feet	99-102
8x8	8-20 feet	84- 87
8x8	22-30 feet	88- 91
8x8	32-40 feet	96- 99
6x6, 8x10, 10x10, 12x12—8-20'		82- 85
6x10, 8x10, 10x10, 12x12—22-30'		86- 89
6x10, 8x10, 10x10, 12x12—32-40'		94- 97
Construction Dimension (Green)		
2x2	6-24 feet	$ 68- 70
2x6	6-24 feet	69- 71
2x8	6-24 feet	68- 70
2x12	6-20 feet	69- 71
Standard & Better Boards (Green)		
1x4	6-20 feet	$ 40- 43
1x8	6-20 feet	51- 54
1x12	6-20 feet	54- 57

Douglas Fir Plywood

¼-inch AD S02S $68

Southern Pine (KD Stock)

Vertical Grain Flooring

	B&Btr	C	D
1x4	$225	$215	$155
Flat Grain Flooring			
1x4	165	157	140
1x6	197	177	135
Drop Siding			
1x6 No. 106	197	184	137
1x6 No. 116	197	184	137
Boards and Shiplap			

	1x6	1x8	1x10	1x12
No. 1	$122	$130	$130	$172
No. 2	76	83	79	93
No. 3	55	65	65	66

No. 1 Dimension

	12	14	16	18	20
2x4	$105	$105	$105	$120	$120
2x6	98	98	97	116	116
2x8	97	97	95	115	115
2x10	110	102	102	120	120
2x12	115	108	106	125	125

No. 2 Dimension

	12	14	16	18	20
2x4	$ 99	$ 99	$ 99	$115	$115
2x6	87	88	88	103	103
2x8	88	84	82	102	102
2x10	91	93	90	100	100
2x12	102	100	98	118	120

Western Pine

Ponderosa Pine

	4/4	5/4	6/4
Selects			
C Select	$236	$255	$262
D Select	145	189	180
Shop	No. 1	No. 2	
4/4	$ 67	$ 52	
5/4	124	91	
6/4	122	89	
Commons	No. 2	No. 3	
1x8"	$ 83	$ 60	
1x12"	100	71	
4/4 No. 4 Common RW			$ 56

Idaho White Pine

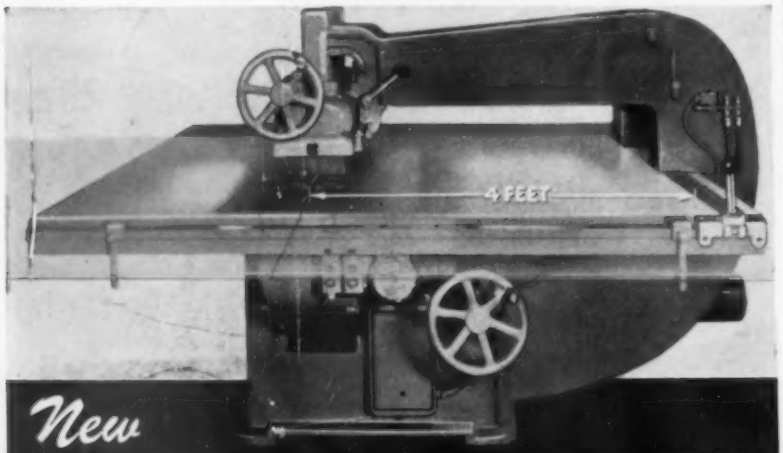
	4/4	6/4	
Select			
Choice	$270	$290	
Quality	175	245	
	Col.	Ster.	Std.
Common	(1)	(2)	(3)
1x8"		$109	$ 75
1x12"		130	81

Sugar Pine

	4/4	5/4	6/4
Select			
B&Btr Select	$281	$249	$287
C Select	262	263	260
Shop	No. 1	No. 2	No. 3
5/4	$124	$ 89	$ 65
6/4	128	95	60
8/4	151	109	73

Larch-Douglas Fir

4/4 No. 3 Common	$59
2x4 No. 1 Dimension	68
2x4 No. 2 Btr Dimension	71



New

EKSTROM, CARLSON

Wide Arm Rip Saw

The Model E Chain Feed Wide Arm Rip Saw has full 48" capacity on both sides of blade with rip fence in place for accurate sizing of 4' x 8' or more panels of all types of materials. Chain and pressure roll principle carries full size panels in multiple thickness through saw blade in parallel and straight line. Variable speed feeds are infinite from 56 to 225 FPM to provide correct feed speed. Adjustable, removable throat insert of soft metal eliminates sliver jams and protects saw blade. Stiffening collars support blade up to level of feed chain. Stock gauge is free floating and of "feather-touch" design.

Get other design and operating features. Write for complete data today or contact your local dealer.

For immediate information call:
Cascade Saw & Machinery
P. O. Box 179
Chehalis, Washington

EKSTROM, CARLSON & CO.
1429 RAILROAD AVENUE ROCKFORD, ILLINOIS

AITC Tells New Standard For Heavy Timber Decking

The new standard, Section 1200, applies only to sawn decking, not laminated decking, according to Frank J. Hanrahan, executive vice-president of the American Institute of Timber Construction.

It covers species, sizes, patterns length, moisture content, application, specifications, applicable unit stresses and roof-load span tables.

INDUSTRY MEETINGS

DECEMBER

Western Forestry & Conservation Association, annual conference, December 7-9, Empress Hotel, Victoria, B. C.

Wirebound Box Manufacturers Association, annual meeting, December 8-9, Sheraton Blackstone Hotel, Chicago, Ill.

Tacoma Lumbermen's Club, annual banquet, December 9, Winthrop Hotel, Tacoma, Wash.

Red Cedar Shingle Bureau, annual meeting, December 9, Olympic Hotel, Seattle, Wash.

California Redwood Association, board of director's meeting, December 12, 576 Sacramento St., San Francisco, Calif.

National Oak Flooring Manufacturers Association, annual meeting, December 13-14, Hotel Peabody, Memphis, Tenn.

JANUARY 1961

B. C. Truck Loggers Association, annual convention, Jan. 11-13, Vancouver Hotel, Vancouver, B. C.

Yale-Oregon State College Industrial Forestry Seminar, Jan. 16-27, OSC School of Forestry, Corvallis, Oregon.

FEBRUARY

Southern Pulpwood Conservation Association, February 7-8, Roosevelt Hotel, New Orleans, La.

Oregon Logging Safety Institute, February 9-10, OSC School of Forestry, Corvallis, Ore.

Sierra Cascade Logging Conference, Feb. 16-18, annual meeting, Sacramento, Calif.

Oregon Logging Conference, February 23-25, Eugene, Oregon, Lane County Fairground. Also Machinery Show.

Fernhopper Day and Banquet, February 25, Oregon State College School of Forestry, Corvallis, Ore.

Fourth Annual Cooperative Kiln-Drying Short Course, February 27—March 3, Purdue University, Lafayette, Ind.

MARCH

Western Pine Association, March 8-11, San Francisco, Calif.

Hardwood Plywood Institute, March 9-10, spring membership meeting, Shoreham Hotel, Washington, D. C.

Redwood Region Logging Conference, March 9-10, Fair Grounds, Ukiah, Calif.

National Association of Lumber Salesmen, Inc., March 9-11, Dupont Plaza Hotel, Miami, Florida.

Aerial Photo Short Course, March 20-24, Oregon State College School of Forestry, Corvallis, Ore.

Lumber Seasoning Course and Kiln Drying Demonstration, March 20-25, sponsored by Univ. of Washington College of Forestry and Institute of Forest Products.

Intermountain Logging Conference, March 26-29, Davenport Hotel, Spokane, Wash.

Hardwood Men Elect

K. R. Michel of Michel Lumber Co., Oswego, Ore., is new president of of the Northwest Hardwood Association. Other officers named at the annual meeting in Seattle, Wash., are L. R. Smith, L. R. Smith Hardwood Co., Longview, Wash., vice-president; John W. Allen, Bloedel Timberlands Development Inc., Bainbridge Island, Wash., treasurer. Secretary-manager Harry O. Mitchell, reported a 32% increase in membership during the year. Membership now totals 83, representing timberland owners, loggers, sawmill operators, re-manufacturers, forest consultants, research agencies in forestry and manufacturers of furniture, cabinets, millwork, wall paneling, veneers and by-products.

Finger-Jointed Framing Lumber Gets FHA Approval

FHA says finger-jointed lumber may be used as vertical structural members on FHA insured projects. The FHA materials release covers the use of 2x4 and 2x6 lumber used primarily as studding up to 10 feet in length, but also for headers, floor plates and trimmers.

The action will create more markets and expanded production of finger jointed structural material and allow more complete utilization of raw material available to sawmills.

Promotions at G-P

John S. Brandis, senior vice-president timberlands and production, and William H. Hunt, vice-president of plywood and specialty sales, have been elected to the board of directors of Georgia-Pacific Corp. This brings membership to 15, eight of whom are outside directors and seven G-P executives.

Buyer's Guide Advertising Rates

(Standard advertising agency commissions apply)

Inches	Per Column Inch
1-44"	$15.00
45-89"	13.75
90-179"	12.50
180-359"	11.50
360" or more	11.00

PROFESSIONAL CARDS
(Not commissionable)
All cards set in uniform style—⅛" deep by 2¼" wide. $12.00 per column inch. Special rate: $125 for 13 one-inch card insertions if paid in advance, to run within 52-week period, without copy change.

CLASSIFIED—POSITIONS & HELP WANTED
(No agency discounts on classified space)
30c per word, $7.00 minimum; 60c per word for Display (Boldface) Type.
$2.00 additional for box number

Next Issue January, closing December 8th

THE LUMBERMAN
731 S. W. Oak Street
Portland 5, Oregon

THE LUMBERMAN BUYERS GUIDE

FEDERAL PIPE & TANK CO.
Wood Pipe
2 inches to 16 feet diameter.
Wood Tanks
100 gallons to 500,000 gallons capacity.
6851 East Marginal Way
PArkway 2-0582 Seattle, Wash.

Maneuverable & Rugged

"Boom Boat" "Jet Dozer"

Nichols steel boom boats and tug boats are used wherever logs are sorted, handled or towed. 16'-20'-24' boom boats. Ask about our Jet Dozer Boats.
Write for pamphlet with names of users and other descriptive matter.
Nichols Boat Works Co.
HOOD RIVER, OREGON
Phone EV. 6-3512

NEW OR USED...
HYSTER SALES CO.
Has a Lift Truck for Your Particular Need

HYSTER
LIFT TRUCKS and STRADDLE TRUCKS
From 2,000 to 40,000-lb. capacities now available for immediate delivery

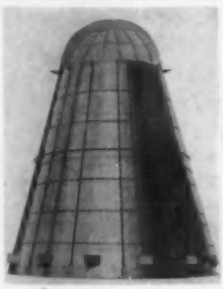
As your Hyster Sales dealer, we are equipped to offer Complete Job Analysis of your lift truck needs; Complete Parts and Field Service; Modern Shop Facilities for major repairs; and our factory Trained Mechanics are field experienced to keep your equipment in top condition. Call today.
In PORTLAND—CALL BE 4-6471
Hwy. 99E at S.E. 20th Ave.
5251 S.E. McLoughlin Blvd.
In MEDFORD—CALL SP 3-6360
674 South Grape Street
In BOISE, Idaho—CALL 3-5441
HYSTER Sales Company

THE LUMBERMAN BUYERS GUIDE

WHEN IN NEED OF
NEW GLUE SPREADER ROLLS
RE-GROOVING or RECOVERING
contact
Kenton Machine Works
8411 N. Denver Ave. Portland 17, Ore.
Phone BUtler 5-6663

MYERS POLE SHAVERS
USE ELECTRIC, GAS OR DIESEL POWER
Claude Myers Troy, Montana
P. O. Box 171 Phone 3113

COLUMBIA RUBBER MILLS
Molded Rubber Products
Washers • Bushings • Gaskets • Rolls
12022 S.E. Powell Blvd.
Phone PR 4-4824 Portland 66, Ore.

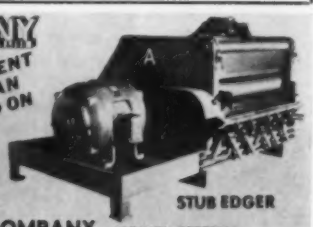


SEATTLE REFUSE BURNERS
Prefabricated For Easy Erection
Send for Catalog No. 11

- BOILERS—NEW & USED
- TANKS, STACKS, CONVEYORS
- CUSTOM FABRICATION WORK

SEATTLE BOILER WORKS, INC.
Since 1889
5237 East Marginal Way • Seattle, Wash.
Phone Day—PArkway 2-0737
Night—GLencourt 4-5338

ABANY
EQUIPMENT YOU CAN DEPEND ON



BELT DRIVEN WHEEL TRIMMER
STUB EDGER
ALBANY MACHINE AND SUPPLY COMPANY ALBANY, OREGON
Re'ne Fritz, Manager • Telephone WAbash 8-9441

LOG BRONC leads

IN SAVING DOLLARS and MANPOWER

Here's another Log Bronc in action . . . this one at Honer Lumber Co., Cascadia, Oregon. Its being proved everywhere that the LOG BRONC saves money and manpower by faster, more efficient log handling. More maneuverability; easier to operate; the most versatile pond boat on the market.

Protected by U.S. Patent No. 2844120 & Canadian Patent No. 583126

Distributed in the Western states by AIR-MAC, Inc.

NELSON LOG BRONC CO. *WRITE FOR ACTION MOVIE*
P. O. BOX 692 COOS BAY, OREGON COngress 7-2928

Please Phone COngress 7-9262 or COngress 7-2928, COOS BAY, Oregon.

ABRASIVES
The Norton Co., Worcester, Mass.; Los Angeles
Simonds Abrasive Co., Philadelphia, Pa.

ADHESIVES
American-Marietta Co., Seattle, Portland, New Westminster, B. C.
Borden Co., Chem. Div. New York City, Seattle
Monsanto Chemical Co., St. Louis, Mo.; Springfield, Mass.; Seattle, Wash.; Santa Clara, Cal.
Pacific Adhesives Co., Inc., Hillsboro, Ore.
Quaker Oats Co., Chemical Div., Chicago, Ill.
Reichhold Chemicals, Inc., White Plains, N. Y.; Seattle; San Francisco; Port Moody, B. C.

AIR COMPRESSORS—AIR TOOLS
Gardner-Denver Co., Quincy, Ill.; Seattle; Portland; San Francisco; Denver, Dallas
Portland Machinery Co., Portland, Ore.

AIR MOTORS
Gardner-Denver Co., Quincy, Ill.; Seattle; Portland; San Francisco; Denver, Dallas
Salem Equipment & Supply Co., Salem, Ore.

APPRAISALS
Caldwell Machinery Co., Portland, Ore.
General Appraisal Co., Seattle; Portland; San Francisco; Los Angeles; Spokane; Vanc., B.C.

AXLES
Eaton Mfg. Co., Axle Division, Cleveland, O.
Rockwell-Standard Corp., Transmission & Axle Div., Detroit, Mich.

BARKERS
Ederer Engineering Co., Seattle, Wash.
Filer & Stowell Co., Milwaukee; Portland
L-M Equipment Co., Portland, Oregon
Nelson Electric Mfg. Co., Tulsa, Okla.
Nicholson Mfg. Co., Auburn, Wash.
Prentice Co., E. V., Portland, Ore.
Sumner Iron Works, Everett, Wn.; Vanc., B.C.
Soderham Machine Mfg. Co., Talledega, Ala.; Portland, Oregon

BEARINGS
Bearing Sales & Service, Inc., Portland & Seattle
Dodge Manufacturing Corp., Mishawaka, Ind.
Link-Belt Co., Chicago, Seattle, Portland, San Francisco, Los Angeles, Spokane, Vanc., B.C.
Chain Belt Co., Schafer Bearing Div., Downers Grove, Ill.

BELTING and PACKING, Belt Accessories
B. C. Goodrich Co., Akron, Portland, Seattle
Goodyear Tire & Rubber Co., Akron, Ohio; Portland; Seattle
Raybestos-Manhattan, Manhattan Rubber Div., Passaic, N. J.
Scougal Rubber Mfg. Co., Seattle, Wash.
U. S. Rubber Co., Mech. Rubber Goods Div., NYC, Atlanta; Portland; San Francisco

BITS and SHANKS
Atkins Div. of Borg-Warner, Indianapolis
R. Hoe & Co., New York; Portland, Birmingham, Ala.
Simonds Saw & Steel Co., Fitchburg, Mass.; Portland

BLOWPIPE SYSTEMS
American Sheet Metal Works, Inc., Portland
Archer Blower & Pipe Co., Seattle & Portland
California Blowpipe & Steel Co., Escalon, Cal.
Medford Blow Pipe Co., Inc., Medford, Ore.
Phelps Bros., Eugene, Ore.; Williams Lake, B.C.
Rader Pneumatics, Inc., Portland; Vanc., B.C.

BOILERS
F. E. Balden Co., Portland
Clayton Manufacturing Co., El Monte, Calif.
Seattle Boiler Works, Seattle, Wash.

BOOM and TUG BOATS
L. S. Baier and Associates, Portland
Nelson Log Bronc Co., Coos Bay, Ore.
Nichols Boat Works Co., Hood River, Ore

BRAKE BLOCKS, LININGS, DRUMS
Champion Friction Co., Eugene, Ore.
Raybestos-Manhattan Corp., Grey-Rock Div., Manheim, Pa.
World Bestos Corp., New Castle, Ind.

BURNERS—REFUSE
California Blowpipe & Steel Co., Inc., Escalon, Calif.
Medford Blow Pipe Co., Inc., Medford, Ore.
Phelps Bros., Eugene, Ore.; Williams Lake, B.C.

CARRIAGES—Riderless—automatic
Filer & Stowell Co., Milwaukee, Wis.
Mater Machine Works, Corvallis
Mill Equipment, Inc., Seattle
Northeast Ohio Machine Bldrs., Columbiana, O.
Sel-Set Machinery Corp., Salem, Ore.

CARRIAGES
Albany Machine and Supply Co., Albany, Ore.
Corley Mfg. Co., Chattanooga; Portland
Klamath Iron Works, Klamath Falls, Ore.
Klamath Mach. & Locomotive Works, Ukiah, Cal.
Mill Equipment Inc., Seattle
Northeast Ohio Machine Bldrs., Columbiana, O.
Prineville Machinery and Supply Co., Prineville.
Sel-Set Machinery Corp., Salem, Ore.

CARRIERS (see Lift Trucks)

CASTINGS, Iron, Steel, Brass
Electric Steel Foundry Co., Portland, Eugene; Seattle, Spokane; San Francisco, Houston
Link-Belt Co., Seattle; Portland; San Francisco
Western Foundry Co., Portland, Ore.

CHAIN, Log Haul
Portland Chain Mfg. Co., Portland

CHAIN, Steel Roller and Malleable
Chain Belt Co., Milwaukee, Wis.; Seattle; Portland; San Francisco; Vancouver, B. C.

Jeffrey Mfg. Co., Columbus; Portland; Seattle
Link-Belt Co., Chicago, Seattle, Portland, San Francisco, Los Angeles, Spokane, Vanc., B.C.
Moline Malleable Iron Co., St. Charles, Ill.; Portland, Tacoma
Portland Chain Mfg. Co., Portland; Seattle; Bellingham

CHIP HANDLING Equipment
American Sheet Metal Works, Portland, Ore.
Archer Blower & Pipe Co., Seattle and Portland
Medford Blow Pipe Co., Inc., Medford
Rader Pneumatics, Inc., Portland; Vanc., B.C.

CHIPPERS
Carthage Machine Co., Carthage, N. Y.
Soderhamn Machine Mfg. Co., Portland, Ore.; Talladega, Ala.
Sumner Iron Works, Everett, Wash.

CHIP SCREENS
Carthage Machine Company, Carthage, N. Y.
El-Jay Mfg. Co., Eugene, Ore.
Link-Belt Co., Seattle, Spokane; Chicago; San Francisco; Los Angeles; Portland; Vanc. B.C.

CLUTCHES
Dodge Mfg. Corp., Mishawaka, Ind.

CONTROLS (air, hydraulic, electric)
Republic Electric & Development Co., Seattle
Valvair Corp., Akron; Birmingham; Seattle; Portland; San Francisco; Denver; Vanc., B.C.

CONVEYORS
American Sheet Metal Works, Inc., Portland
Chain Belt Co., Milwaukee, Wis.; Seattle; Portland; San Francisco; Vanc., B. C.
Electric Steel Foundry Co., Portland; Seattle, Spokane
Jeffery Mfg. Co., Columbus, Ohio
Link-Belt Co., Seattle, Spokane; Chicago; San Francisco; Los Angeles; Portland; Vanc. B.C.
Raybestos-Manhattan, Manhattan Rubber Div., Passaic, N. J.
Nelson Electric Mfg. Co., Tulsa, Oklahoma
Northeast Ohio Machine Bldrs., Columbiana, O.

COUPLINGS (also see hose and couplings)
Falk Corp., Milwaukee, Wis.

CRANES, Overhead
Ederer Engineering Co., Seattle
Harnischfeger Corp., Milwaukee, Wis.

CRANES, Truck, Wagon
American Hoist & Derrick Co., St. Paul, Minn.
Baldwin-Lima-Hamilton Corp., Lima, Ohio
Bucyrus-Erie Co., South Milwaukie, Wis.
Harnischfeger Corp., Milwaukee, Wis.
Insley Manufacturing Co., Indianapolis, Ind.
Koehring Co., Milwaukee, Wis.
R. G. LeTourneau, Inc., Longview, Tex.
Link-Belt Speeder Corp., Chicago, Ill.
Marion Power Shovel Co., Marion, Ohio
Northwest Engineering Co., Chicago, Ill.
Skagit Steel & Iron Works, Sedro-Woolley, Wn.
Thew Shovel Co., Lorain, Ohio
Washington Iron Works, Seattle, Wash.

CUTTERHEADS
Disston Div., H. K. Porter Co., Inc., Seattle, Wash.; Philadelphia, Pa.
Jones & Orth Cutterhead & Knife Div. of R. Hoe & Co., Inc., Seattle, Memphis

CYLINDERS, Air and Hydraulic
Salem Equipment & Supply Co., Salem, Ore.

DECK and POND SAWS
Disston Div., H. K. Porter Co., Inc., Seattle, Wash.; Philadelphia, Pa.
L-M Equipment Co., Portland, Ore.
Schurman Machine Works, Woodland, Wash.

DRIVES
Dodge Manufacturing Corp., Mishawaka, Ind.
Republic Electric & Development Co., Seattle
Western Gear Corp., Seattle, Spokane; Portland; Lynwood, San Francisco, Cal.; Denver; Houston, Dallas, Tex.
Western Machy. Corp., Portland

DRY KILNS and DRIERS
Blo-R-Dry, Inc., Portland, Ore.
C. M. Lovsted & Co., Inc., Seattle, Wash.
Medford Blow Pipe Co., Inc., Medford, Ore.
Medford Machinery Co., Medford, Ore.
Moore Dry Kiln Co., North Portland, Ore.; Jacksonville, Fla.
Prentice Co., E. V., Portland, Ore.
Standard Dry Kiln Co., Indianapolis, Portland

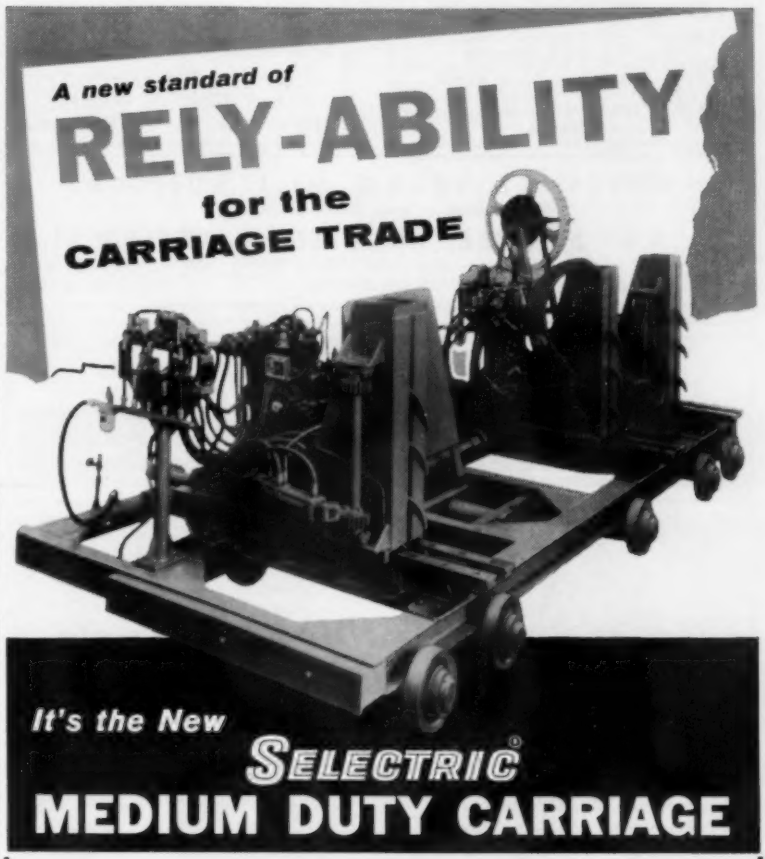
EDGE GLUING
Ederer Engineering Co., Seattle, Wash.
Mann-Russell, Inc., Tacoma, Wash.
Prentice Co., E. V., Portland, Ore.

ELECTRICAL EQUIPMENT, Motors, etc.
Northwest Syndicate (Mann-Russell), Tacoma, Wash.
Portland Machinery Co., Portland, Ore.
Republic Electric & Development Co., Seattle
Square D Company, Los Angeles, Calif.
Weaver Co., Charles, Detroit, Mich.
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

ELECTRIC DC DRIVES
Republic Electric & Development Co., Seattle; Peoria, Ill.; Vanc., B. C.
Zidell Machinery & Supply Co., Portland,

END PRINTERS
Irvington Machine Works, Portland, Ore.

ENGINES, Gas and Diesel
Allis-Chalmers, Buda Division, Chicago; Dallas, Houston; San Francisco.



Now Selectric ruggedness and reliability built into a medium duty carriage designed for the utmost in speed, efficiency and sawing accuracy.

NEW RUGGEDNESS with extra heavy duty unitized welded steel frame of wide flange and ship channel construction with built-in combination air receiver and rub rail. Heavy duty free wheeling carriage trucks with square axles, roller bearings, and cast steel wheel construction.

NEW PERFORMANCE RELIABILITY featuring sturdy headblock assemblies with cast steel bases, welded steel knees, reversible wear strips, adjustable set shaft bearings, non-defacing retractable air dogs, alloy steel set shaft and forged steel pinions.

NEW EFFICIENCY with every aspect of design and engineering detail aimed at achieving a production combination that will exploit to the fullest degree the split-second response and hair-line precision of the Selectric sawyer operated setworks system.

NEW VERSATILITY with models offering 36", 42" and 48" openings as well as a wide choice of hammer dog, taper, flipper, bark blow-off, board dog and cant unloader options.

Check with your nearest Mill Equipment representative for the complete story on the new Selectric medium duty carriage.

SELECTRIC®

A product of

MILL EQUIPMENT, INC.
5219 FIRST AVENUE SOUTH SEATTLE 8, WASHINGTON

Selectric sets the pace in modern sawmill machinery with Sawyer Controlled Setworks • Log Turners • Sawmill Carriages • Cut-off Saws • Industrial Gear Reducers

CALDWELL MACHINERY CO.
"NOPAK"—CYLINDERS & VALVES
Air, Oil & Water Hydraulic
"NOPAKMATIC" — SOLENOID VALVES
STERLING ELECTRIC MOTORS
MACHINERY APPRAISALS
738 N.W. Glisan — Portland 9, Oregon
CA 6-3568

SCOUGAL RUBBER MANUFACTURING CO.
WE CAN MANUFACTURE ANYTHING OF RUBBER
2731 First Ave. So. Seattle, Wash.

ORIGINAL SCRAG MILL BUILDERS
phone or write for list of users
KEYSTONE MACHINE WORKS
All types of sawmill equipment . . . edgers, stud stackers, sprayers, plywood oilers, scrag mills.
P. O. Box 269 ROSEBURG, OREGON Phone: OR 3-6619

CARTHAGE MACHINE CO. - CHIPPERS - WOOD ROOM EQUIPT.
HEPPENSTALL CO. - ALLOY CHIPPER & HOG KNIVES
RICE BARTON CORP. - PULP & PAPER MACHINERY
RAY SMYTHE CO.
511 Park Bldg. • 729 S.W. Alder St. • Portland 5, Ore. • Phone: CApitol 3-0502-2238

PHELPS BROS.
Refuse Burners
Blow Pipe Systems
1885 Highway 99 North
Eugene, Oregon
DI 4-5821
Phelps Burners, Ltd.
P. O. Box 188 Williams Lake, B.C.

SEATTLE
3628 East Marginal Way
MAin 2-8629

NORTHWEST CHAINS & SPROCKETS INC.

PORTLAND
31 N. W. 1st Avenue
CA 8-3367

JEFFREY MFG. CO. • WHITNEY CHAIN CO.
GENERAL ELECTRIC CO • AMERICAN PULLEY CO.
FOOTE BROS GEAR MACHINE CORP'N

Caterpillar Tractor Co., Portland; Seattle; San Francisco; Peoria, Ill.
Cummins Engine Co., Columbus, Ind.; Seattle; Portland.
Detroit Diesel Engine Div. of General Motors, Detroit, Mich.
Ford Motor Co., Dearborn, Mich.
Harnischfeaer Corp., Crystal Lake, Ill.
Chrysler Corp., Industrial Div., Detroit Mich.
International Harvester Co., Chicago; Portland; Seattle; San Francisco.
Murphy Diesel Co., Milwaukee, Wis.
Waukesha Motor Co., Waukesha, Wis.; Los Angeles; Tulsa, Okla.
White Motor Co., Cleveland, Ohio.

ENGINEERS, Forestry-Mill-Industrial
Guertin & Assoc. Ltd., Burnaby, B. C.
Industrial Development Co., Tacoma, Wash.
Rambo, W. H., Portland, Ore.
Timberman's Engineering Co., Portland, Ore.

FANS & BLOWER SYSTEMS
Archer Blower & Pipe Co., Seattle & Portland

FILES
Atkins Div., Borg-Warner, Indianapolis; Portland
Disston Div., H. K. Porter Co., Inc., Seattle, Wash.; Philadelphia, Pa.
Nicholson File Co., Providence, R. I.
Simonds Saw & Steel Co., Fitchburg, Mass.; Portland
Spear & Jackson Ltd., Vanc., B. C.; Eugene

FILING ROOM MACHINERY and SUPPLIES
Newman Machine Co., Inc., Greensboro, N. C.
Nielsen's Saw & Mfg. Co., Roseburg, Ore.
Woods Machine Co., S. A., Boston; Portland; Memphis, Tenn.; San Mateo, Calif.

FRICTION BLOCKS
Champion Friction Co., Eugene, Ore.

GANG SAWMILLS
Corley Mfg. Co., Chattanooga; Portland
Dominion Bridge Co., Vanc., B. C.
Gang Saw Sales, Spokane, Wash.
Jeddeloh Bros., Inc., Gold Hill, Ore.
Mill Eng. & Supply Co., Seattle
Monarch Forge & Machine Works, Portland
Portland Machinery Co., Portland, Ore.
Soderhamn Machine Mfg. Co., Portland, Ore.

GEARS and GEAR MOTORS and SPROCKETS
Falk Corp., Milwaukee, Wis.
Link-Belt Co., Seattle, Spokane; Chicago; San Francisco, Los Angeles; Portland; Vanc., B. C.
Western Gear Corp., Seattle, Spokane; Portland; Lynwood, San Francisco, Cal.; Denver; Houston, Dallas, Tex.
Western Machy. Corp., Portland

GRADE MARKING EQUIPMENT
Irvington Machine Works, Portland

GRINDING WHEELS
Norton Co., Worcester, Mass.

GUIDE SETWORKS
Ward, M. A. Const. Co., Inc., Eugene, Ore.

HARDBOARD plant equipment
American Mfg. Co., Tacoma; Vanc., B. C.
Greenlee Bros. & Co., Rockford, Ill.; Seattle; San Francisco; High Point, N. C.
Grenco Inc., Seattle; Portland
Washington Iron Works, Seattle, Wash.

HOG, CRUSHERS, PULVERIZERS
Portland Machinery Co., Portland

THE LUMBERMAN PROFESSIONAL SERVICES

Timberman's Engineering Co.
CIVIL — MECHANICAL ENGINEERS
916 N.E. 25th Ave.
Portland, Oregon BEImont 4-0424

YOUR
Professional Services card in this space will reach over 17,000 regular readers each month.

Our Facilities . . . Experience, and Services
ARE AVAILABLE TO YOU
KLAMATH IRON WORKS
P. O. Box 129 Klamath Falls, Ore.
Phone TU 4-7721

Thompson & Holmberg Inc.
CONSULTANTS
Wood Working Plants
Sawmills, Veneer, Planing Mill, Wood Rooms Barking & Chipping Installations
Terminal Sales Bldg.
Phone CApitol 8-1965 Portland 5, Ore.

R. GUERTIN & ASSOCIATES LTD.
CONSULTING ENGINEERS
Specializing in veneer and plywood plants, sawmills, structural engineering, production development in wood manufacturing plants.
1016 S. W. Marine Tel. AM 6-2940
Vancouver, B. C.

SAWMILL CONSULTANT
SAWMILL BUILDER
Sales Representative for Carthage Machinery Co.
Walter W. Warner
206 Pennsylvania Avenue
Ontonagon, Michigan Phone No. 8F2

INDUSTRIAL DEVELOPMENT CO.
Dale L. Schubert, Engineering — Designers and Consultants for
HARDBOARD, CHIP & FLAKEBOARD AND OTHER WOOD UTILIZATION PLANTS
Development and mock-up facilities
3848 South Pine TACOMA 9, WASH. Ph. GReenfield 2-4413
Serving industry on a national and international basis

FOR SAWMILLS SEE
M. A. WARD
CONSTRUCTION CO., INC.
391 E. Third Avenue • Eugene, Oregon
Phone DI 4-5531

HOSE and HOSE COUPLINGS
Aeroquip Corp., Jackson, Mich.; Greensboro, Portland; Burbank; Los Angeles; Dallas
B. F. Goodrich Co., Akron, Ohio
Goodyear Tire & Rubber Co., Akron, Ohio
Pacific Marine Supply Co., Seattle
Raybestos-Manhattan, Manhattan Rubber Div., Passaic, N. J.
U. S. Rubber Co., Mech. Rubber Goods Div., NYC; Atlanta; Portland; San Francisco

HUBS, SELECTIVE DRIVE For 4-Wheel Drives
Warn Mfg. Co., Seattle

HYDRAULIC & AIR EQUIP.
Bobbs Air-Draulics, Inc., Ray, Portland, Ore.

INSTRUMENTS
Moore Dry Kiln Co., No. Portland, Ore.; Jacksonville, Fla.; Vanc., B. C.

KILN COATINGS
Gilsonite Co., Portland, Ore.

KNIVES, planer, hog, veneer, chipper
Atkins Div., Borg-Warner, Indianapolis
Cascade Saw & Tool Co., Chehalis, Wash.
Disston Div., H. K. Porter Co., Inc., Seattle, Wash.; Philadelphia, Pa.
Heppenstall Co., Pittsburgh, Pa.
Jones & Orth Cutterhead & Knife Div., R. Hoe & Co., Inc., New York, Birmingham, Memphis, High Point, N. C., Chicago, Seattle, Portland
Ohio Knife Co., Cincinnati, Ohio; Portland
Simonds Saw & Steel Co., Fitchburg, Mass.; Portland
Ray Smythe Co., Portland
Spear & Jackson, Vanc., B. C.; Eugene, Ore.
Wapakoneta Machine Co., Wapakoneta, Ohio

KNOT SEALERS
Western Machinery Corp., Portland, Ore.

LIFT TRUCKS
Allis Chalmers Buda Div., Milwaukee
Clark Equipment Co., Ind. Truck Div., Battle Creek, Mich.; Seattle; Portland; San Francisco.
Gerlinger Carrier Co., Dallas, Ore.
Hyster Company, Portland; Seattle
Hyster Sales Co., Portland, Oregon
Prentice Co., E. V., Portland, Ore.
Towmotor Corporation, Cleveland, Ohio

LOG STACKERS
LeTourneau, Inc., R. G., Longview, Texas
Caterpillar Tractor Co., Peoria, Ill.
International Harvester Co., Chicago; Portland

LUMBER CONVEYORS
Lawson Stacker Co., Memphis, Tenn.

LUMBER FINANCING
Douglas-Guardian Warehouse Corp., New Orleans; Portland; Los Angeles; San Francisco.

LUMBER STACKERS, UNSTACKERS, LOADERS AND HOISTS
Lawson Stacker Co., Memphis Tenn.
Lovsted & Co., Inc., C. M., Seattle, Wash.
Moore Dry Kiln Co., Vancouver, B. C.; Brampton, Ont.; Jacksonville, Fla.; North Portland, Ore.
Stetson-Ross Machine Co., Seattle

MACHINERY APPRAISALS
Caldwell Machinery Co., Portland, Ore.

MACHINERY LIQUIDATORS
Carroll Machinery Co., Clyde P., Portland.

MOISTURE METERS AND CONTROL EQUIP.
Laucks Sentry Products, Seattle, Wash.

MOTORS AC
Bartlett Electric Co., Salem, Ore.
Zidell Machinery & Supply Co., Portland.

OILS and LUBRICANTS and FUELS
Lubriplate Div., Fiske Bros. Refining Co., NYC
Mobil Oil Co., Los Angeles, San Francisco, Seattle
Shell Oil Co., Portland, Seattle; Tacoma, Spokane; San Francisco; Vanc., B. C.
Standard Oil Co. of California, San Francisco
Suburban Gas (Propane) Portland; Redi-Gas (Propane) Tacoma
Texaco, Inc., NYC, NY
Tidewater Oil Co., San Francisco
Union Oil Co. of California, Los Angeles

OUTBOARD MOTORS
Evinrude Motors, Milwaukee, Wis.
Johnson Motors, Chicago, Ill.

PETROLEUM — LIQUIFIED
Suburban Gas (Propane) Portlane, Oregon
Suburban Gas (Propane) Spokane, Wash.
Redi-Gas (Propane) Tacoma, Washington

PIPE, corrugated, culvert, welded
Armco Drainage & Metal Products, Inc., Middletown, Ohio; Berkeley, Calif.; Seattle; Spokane; Atlanta; Denver; Houston, Texas; Guelph, Ontario, Canada.
Beall Pipe & Tank Corp., Portland

PLANING MILL MACHINERY & EQUIPMENT
C. M. Diehl Machine Co., Inc., Wabash, Ind.
Greenlee Bros. & Co., Rockford, Ill.; Seattle; San Francisco; High Point, N. C.
Irvington Machine Works, Portland
Mereen-Johnson Machine Co., Minneapolis
Newman Machine Co., Inc., Greensboro.
Portland Machinery Co., Portland, Ore.
Woods Machine Co. S. A., Boston; Portland; Little Rock; Memphis; San Mateo, Calif.
Yates-American Machine Co., Beloit, Wis.; High Point, N. C.; Memphis; Portland

Haskew Offers From Stock

Yates-American A-20 20" Elect. 6 K
Yates-American A-20 15" Belt 6 K
Yates-American A-62 15" Belt 8 K
Woods 412 15" Belt 8 K
Newman 512 16" Belt 8 K
Mereen-Johnson 210 54" Resaw B.B.
Mershon 54C 54" Resaw B.B.
Yates-American V54 54" Resaw B.B.

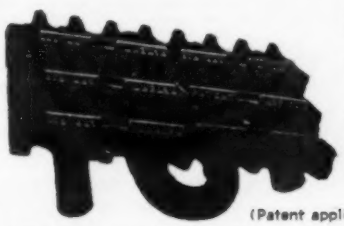
R. K. HASKEW & CO., INC.
Box 4065 Phone Amherst 6-6214
Chattanooga 5, Tennessee

Skrag Mills, Resaws, Planers, Edgers
Feed Tables Line Bars
Breakdown Hoists
LUSTER ENGINEERING & MACHINE WORKS
3707 University Way
P. O. Box 67 Seattle 5, Wash.
Phone ME 2-1224

Want to Buy, Sell & Liquidate Used Sawmills and Machinery
We Buy & Sell
JANZEN EQUIPMENT CO.
1921 S. E. Grand Avenue Portland, Ore.
Phone BE 4-8346

POWER PLANT EQUIPMENT
Turbines ● Boilers ● Diesels—Any Size
Write for Prices Giving Your Requirements
CHARLES WEAVER CO., INC.
19701 James Couzens Highway ● BR 3-1900 ● Detroit 35, Mich.

"The Hogan" Fly Ash Precipitator
Sawdust Storage Bins
Chain Conveyors
Belt Conveyors
Screw Conveyors
Bucket Elevators
AIR CONVEYING
DUST COLLECTING
INCINERATORS
CALIFORNIA BLOWPIPE AND STEEL CO., INC.
CONVEYORS
BUCKET ELEVATORS
Pneumatic Conveying
Blowpipe
Dust Collecting
Structural — Plate — Sheet Metal
Phone TErrace 8-7323
Escalon, Cal.



S. W. S.
WATER-COOLED GRATES

are life-time grates for use in Dutch ovens and for heat recovery from refuse burners to heat log ponds.

(Patent applied for in U.S. and Canada)

Adjustments can be made along pipes to change openings to suit fuel and are locked in place to prevent moving by sharp-edged chips.
Tapered ends allow adjustment at right angles to pipe, making center grates reversible.
Clinkers cannot stick to grates thus leaving constant grate opening for the life of the grates.
Any water pressure can be used providing that it is within that allowed by the State Code. Any water temperature can be used providing that the discharge is not greater than 10°F of the boiling point at the pressure used.
We have built these grates for over nine years and have not replaced a single part! These grates will save you many thousands of dollars in replacing air-cooled grates as well as the heat return to the boiler of approximately 3 to 4% of boiler rating.

Mail us the size of your Dutch oven for quotation and additional information or ask for engineering information regarding the use of these grates for transferring heat from your refuse burner to keep log pond from freezing.

SAMS & WELLONS MFG. CO.
622 Henry Bldg. PORTLAND 4, OREGON CApitol 7-3111

BEST SOURCE OF

SPECIAL STEELS

for FOREST PRODUCTS INDUSTRIES

Moly-Krome Alloy Steels • Electrite High Carbon Steel • Tool Steel • Acralloy Precision Shafting • Arrow-Ten Precision Shafting • Homo-Ten Cold Finished Steels • Seamless and Welded Mechanical Tubing.

PACIFIC

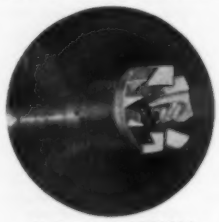
Serving Northwest Woodworking Industries Since 1912

PACIFIC MACHINERY & TOOL STEEL CO.

630 S. E. BELMONT • PORTLAND, OREGON

QUICK CHANGE CHUCK

For Veneer Lathes



U. S. Patent 2879816

Adapter hub stays on the spindle. Lightweight plates are easy to change. Installed on your lathe on free trial basis.

See for yourself why major plywood plants use Humboldt Quick Change Chucks.

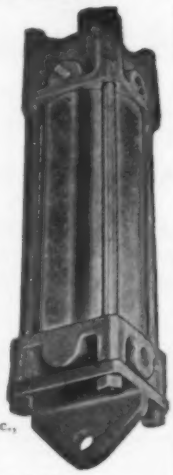
We now have our #2½ series chuck sizes 4½" - 12" FOR SMALL LOGS & CORES
Also our famous #3½ series chuck sizes 7" - 24"

HUMBOLDT Machine Works

937 - 10th St. Arcata, Calif.
Phone: VAndyke 2-2928

ATLAS HEAVY-DUTY CYLINDERS for

HEAVY DUTY SERVICE
• Hydraulic and Air
• 24 HOUR SHIPMENT
• ANY TYPE MOUNTING



John O'Brien Co., Portland, Ore.
W. G. Rovang & Assoc., Portland, Ore.
Fred E. Barnett Co., Ukiah, Calif.
Bearings & Transmission Products, Eureka, Calif.
Hydraulic Equipment Co., Montebello, Calif.
Mill Equipment Co., Seattle, Wash.
Bitco-Inc., Spokane, Wash., Osburn, Ida., Cranbrook, B. C., Nelson, B. C.

mfd by SAWYER MACHINE WORKS

630 Garfield DI 4-3255 - Eugene, Ore.

USED EQUIPMENT FOR SALE

BARKING & CHIPPING

1 Soderhamn D-3 Debarker, 5"-36" log dia.; rebuilt, scraper or chain head ..... $ 6,000
2 Soderhamn D-3 Debarkers, 5"-36" log dia. scraper or chain head, one located in Arkansas. Each, $ 5,000
1 Soderhamn D-5 Slab Barker, LFM approx. 160, good condition. Wonderful buy for low production sawmill selling clean slabs to concentration yards. $10,500
1 14" Cambio Debarker complete with 24' infeed, 16' outfeed conveyors; used on pulpwood installation. Rebuilt unit, **new machine guarantee** $12,000
1 14" Cambio Debarker, top condition, **new machine guarantee.** $ 9,500
2 Fulghum Debarkers, 5"-32" log dia.; scraper head type, good condition. ..... Each, $ 6,500
3 Hurricane Debarkers, 5"-30" log dia.; One in Arkansas. .... Each, $ 3,000
1 26" Mullis Debarker, ring type. $ 8,000
1 26" Jackson Debarker, scraper head. ..... $ 5,000
1 Soderhamn 56" Horizontal Chipper, 6-knife, upward discharge. Rebuilt, **new machine guarantee.** $ 7,710

LOG HANDLING

1 Super 10 Cary-Lift, Model 54. Can be seen on our Talladega yard. ..... $ 8,500
1 Super 10 Cary-Lift, Model 554. Can be seen at Bill Brown's Masonite wood yard, Vicksburg, Miss. ..... $ 6,000
1 Model 5150 Cary-Lift, 15,000 # machine, new demonstrator, Melvin Donald's Masonite wood yard, Quitman, Miss. $12,000
1 Taylor fork truck, 15,000 # machine one year old. See on our Talladega yard. ..... $ 6,000

For details, call, wire or write:

SODERHAMN MACHINE MFG. CO.

Talladega, Ala. EMerson 2-9081

PLY. & VENEER MACHY. & SUPPLIES
American Mfg. Co., Tacoma; Vanc., B.C.
Chas. F. Bamford, Portland, Ore.
Carroll Machy. Co., Clyde P., Portland, Ore.
Cascade Saw & Machine Co., Chehalis, Wash.
Coe Mfg. Co., Painesville, Ohio; Portland
Lodge & Shipley, Columbia Press Div., Hamilton, Ohio
Elliott Bay Plywood Machines Co., Seattle
Ederer Engineering Company, Seattle
Globe Manufacturing Co., Tacoma, Wash.
Greenlee Bros. & Co., Rockford, Ill.; Seattle; San Francisco; High Point, N. C.
Jackson Industries, Birmingham; Portland
Kenton Machine Works, Portland, Oregon
Kohler-Joa Corporation, Sheboygan Falls, Wisc.; Chehalis, Wash.
L-M Equipment Co., Portland
Lamb-Grays Harbor Co., Hoquiam, Wash.
Mattison Mach. Wks., Rockford, Ill.
Mereen-Johnson Co., Minneapolis
Moore Dry Kiln Co., North Portland, Ore.
Northwest Syndicate (Mann-Russell), Tacoma
Peninsula Iron Works, Portland
Portland Iron Works, Portland
Prentice Company, E. V., Portland, Ore.
Reichhold Chemicals, Inc., New York City
Republic Electric & Development Co., Seattle
Siempelkamp Co., Krefeld (Western Germany)
Skoog Engineering Co., Olympia, Wash.
Star Machinery Co., Seattle, Wash.
Jackson Ind., Veneer Mac. Div., Birmingham
Washington Iron Works, Seattle, Wash.
Wapakoneta Machine Co., Wapakoneta, Ohio
Western Machinery Corp., Portland
Wilco Machine Works, Memphis, Tenn.
Williams-White & Company, Moline, Ill.
Wood Co., R. D., Philadelphia, Pa.
Yates-American Machine Co., Beloit, Wis.; High Point, N. C.; Memphis; Portland

POLE SHAVERS & PROCESSING SYSTEMS
Nelson Electric Mfg. Co., Tulsa, Okla.

POND BOATS
Nelson Log Bronc Co., Coos Bay, Ore.
Nichols Boat Works, Hood River, Ore.

POWER PLANT EQUIPMENT
Seattle Boiler Works, Seattle

PRESSES, hydraulic, hot plate, cold
Allied NW Mach. Tool Corp., Portland
Lodge & Shipley Co., Columbia Division, Hamilton, Ohio
Star Machinery Co., Seattle, Wash.
Washington Iron Works, Seattle
William-White & Co., Moline, Ill.
Wood Co. R. D., Philadelphia, Pa.

RADIO and RADIO EQUIPMENT
Motorola Inc., Chicago, Ill.

REFUSE BURNERS
Archer Blower & Pipe Co., Seattle & Portland
Phelps Bros., Eugene, Ore.
Seattle Boiler Works, Seattle

ROLLS, rubber
Columbia Rubber Mills, Portland
Kenton Machine Works, Portland

ROOF COATINGS
Gilsonite Co., Portland, Ore.

RUBBER SPECIALTIES
Columbia Rubber Mills, Portland
Kenton Machine Works, Portland
Raybestos-Manhattan, Inc., Manhattan Rubber Div., Passaic, N. J.
Scougal Rubber Mfg. Co., Seattle

SAPSTAIN APPLICATORS
Keystone Machine Works, Roseburg, Ore.

SAW GUMMERS
Norton Co., Worcester, Mass.

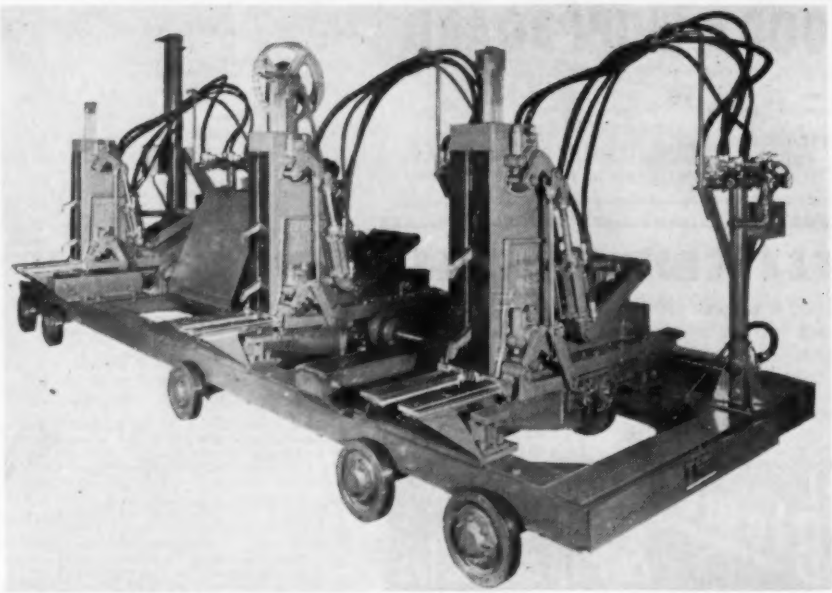
SAWS, SAW CHAINS, KNIVES, CUTTERHEADS
Atkins Saw Div., Borg-Warner, Indianapolis, Ind.; Portland; Seattle; Los Angeles; Chattanooga, Tenn.
Caldwell Machiery Co., Portland, Ore.
Cascade Saw & Machine Co., Chehalis, Wash.
Hoe & Co., Inc., R. New York; Birmingham; Memphis; High Point, N. C.; Chicago; Seattle; Portland.
Ohio Knife Company, Seattle; Portland; Oakland; Cincinnati.
Pacific Saw & Knife Co., Portland; Los Angeles
Simonds Saw & Steel Co., Fitchburg, Mass.; Portland
Spear & Jackson Ltd., Vanc., B. C.; Eugene.

SAW GUIDES
Champion Friction Co., Eugene, Ore.

SAWMILL MACHINERY and EQUIPMENT
Albany Machine and Supply Co., Albany, Ore.
Caldwell Machinery Company, Portland
Carroll Machy Co., Clyde P.
Corley Mfg. Co., Chattanooga, Tenn.
Dominion Bridge Co., Ltd., Vancouver, B. C.
Electric Steel Foundry Co., Portland, Eugene; Seattle; Spokane; San Francisco; Houston
Filer & Stowell Co., Milwaukee, Wis.
Goldstein & Bloch, Aberdeen, Wash.
Irvington Machine Works, Portland
Jeddeloh Bros., Gold Hill, Ore.
Keystone Machine Works, Roseburg, Ore.
Klamath Iron Works, Klamath Falls, Ore.
Klamath Mach. & Locomotive Wks., Ukiah, Cal.
Kohler-Joa Corporation, Sheboygan Falls, Wis.; Chehalis, Wash.
L-M Equipment Co., Portland, Ore.
Lovsted & Co., Inc., C. M., Seattle, Wash.
McDonough Mfg. Co., Eau Claire, Wis.
Mereen-Johnson Machine Co., Minneapolis
Mill Equipment, Inc., Seattle
Monarch Forge & Machine Works, Portland

KLAMATH IRON WORKS
SMALL LOG AIR DOG CARRIAGES

KLAMATH IRON WORKS



- ✓ Non-Defacing Dogs
- ✓ Cast Steel Knees and Blocks
- ✓ Anti-Friction Trucks
- ✓ Steel Frame
- ✓ Sawyer Controlled or Conventional Setworks

"Original Designers and Builders of Complete Line of Sawmill Machinery"

KLAMATH IRON WORKS

Klamath Falls, Ore.

P. O. Box 129 TUxedo 4-7721 EXPORT REPRESENTATIVE: UNITED STATES MACHINERY CO., NEW YORK, N. Y.

National Machinery Sales, Gold Hill, Ore.
Newman Machine Co., Greensboro, N. C.
Northeast Ohio Machine Bldrs., Columbiana, Ohio
Portland Chain Mfg. Co., Portland; Seattle; Bellingham, Wash.
Portland Iron Works, Portland
Portland Machinery Company, Portland
Prescott Iron Works, Inc., Portland
Prineville Mach. & Supply Co., Prineville
Salem Equipment & Supply Co., Salem, Ore.
Schurman Mach. Works, Inc., Woodland, Wn.
Star Machinery Co., Seattle, Wash.
Sumner Iron Works, Everett, Wash.
Tyee Machinery Co., Seattle, Wash.
Ward Construction Co., M. A., Eugene, Ore.
Western Machinery Corp., Portland
Wheland Company, Chattanooga, Tenn.
Yates-American Machine Co., Beloit, Wisc.; High Point, N. C.; Memphis; Portland.
Zidell Machinery & Supply Co., Portland

SCRAGG MILLS
Keystone Machine Works, Roseburg, Ore.

SCREENS—CHIPS
El-Jay Mfg. Co., Eugene, Ore.

SETWORKS—Automatic
C & D Machine Shop, Riddle, Ore.
Klamath Mach. & Locomot. Wks., Ukiah, Cal.
Mill Equipment, Inc., Seattle
Monarch Forge & Machine Works, Portland
Sel-Set Machinery Corp., Salem, Ore.
Ward Const. Co., Inc., M. A., Eugene, Ore.

SHREDDERS
Jeffrey Manufacturing Co., Columbus, Ohio

SPLITTERS, log
L-M Equipment Company, Portland, Ore.

SPEED REDUCERS
Dodge Manufacturing Corp., Mishawaka, Ind.
Falk Corporation, Milwaukee, Wis.
Western Gear Corp., Lynwood, San Francisco; Houston; Dallas; Seattle; Spokane, Portland

SPROCKETS and GEARS
Chain Belt Co., Seattle, Portland, San Francisco
Falk Corporation, Milwaukee, Portland
Link-Belt Co., Chicago; Seattle; Spokane; Portland; San Francisco, Los Angeles; Vanc., B. C.

STACKERS, UNSTACKERS, TRANSFERS
Lawson Stacker Co., Memphis, Tenn.
Loysted & Co., Inc., C. M., Seattle, Wn.
Moore Dry Kiln, North Portland, Ore.; Jacksonville, Fla.

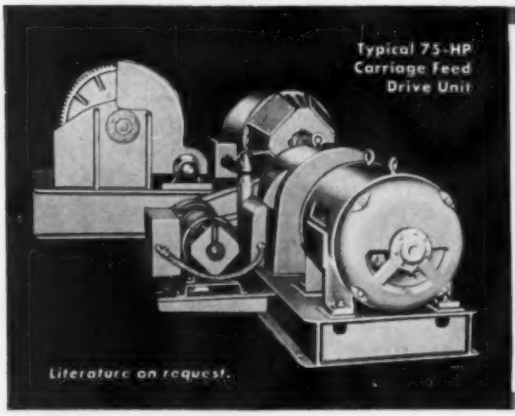
STEEL, products, buildings, structural, industrial
Armco Drainage & Metal Products, Inc., Middletown, Ohio; Berkeley, Calif.; Seattle, Spokane; Portland; Atlanta; Denver; Houston; Guelph, Ontario

STEEL STRAPPING and STRAPPING TOOLS
Acme Steel Co., Chicago; Portland; San Francisco; Atlanta; Spokane.
U.S. Steel Corp., Chicago, Seattle; Portland; So. San Francisco; Birmingham
Signode Steel Strapping Co., Chicago; Seattle, Spokane; Portland; San Francisco; Vanc., B. C.

TIRES
Firestone Tire & Rubber Co., Akron, Ohio
General Tire & Rubber Co., Akron, Ohio; Portland
B. F. Goodrich Co., Akron, Ohio; Portland; Seattle
Goodyear Tire & Rubber Co., Akron, Ohio; Portland; Seattle
U. S. Rubber Company, New York City; Portland; Seattle

TORQUE CONVERTERS
Schneider Div. of Westinghouse, Muncie, Ind.
Western Gear Works, Seattle

TRACTORS, Crawler
Case Co., J. I., Racine, Wis.
Allis-Chalmers, Milwaukee, Wis.
Caterpillar Tractor Co., Peoria, Ill.
Deere Industrial Div., John, Moline, Ill.
Euclid Div. of General Motors, Cleveland, O.
International Harvester Co., Chicago, Ill.
Oliver Corp., Chicago, Ill.



ELECTRIC DRIVES

For Carriages, Feed Roll Systems, Veneer Lathes, Tray Systems, Conveyors, Machine Tools, Etc.

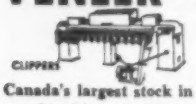
Install a Quality-Built D.C. Feed... Designed for Rugged Service & Trouble-Free Performance. Backed by a one-year Zidell Guarantee.

ZIDELL
MACHINERY & SUPPLY CO.
3121 S. W. Moody St., Portland, Ore.
CA 8-8691

ferro machinery
COMPANY LIMITED

Complete heavy European equipments for

VENEER · PLYWOOD & CHIPPBOARD PRODUCTION



Canada's largest stock in new and used woodworking machinery for Furniture and Sawmills.

ATTRACTIVE PRICES!

WRITE FOR LITERATURE

TRANSATLANTIC MACHINERY CO.

139-141 Front St., E Toronto — EM 8-3884

ARCHER BLOWER CHIP SYSTEMS

ARCHER PNEUMATICS ● BLOWER SYSTEMS and
DUST COLLECTING SYSTEMS OF ALL TYPES!
HIGH PRESSURE PNEUMATIC SYSTEMS FOR PULP CHIPS

Call

PORTLAND 1, ORE.
6141 S.W. Macadam Ave.
CHerry 6-3308

2 PLANTS

SEATTLE 8, WASH.
9500 E. Marginal Way
PArkway 5-4003

ARCHER BLOWER AB PNEUMATICS SYSTEMS

Archer Blower & Pipe Co., Inc.

SINCE 1900

TRACTORS, Rubber Tired
Allis-Chalmers, Milwaukee, Wis.
Case Co., J. I., Racine, Wis.
Caterpillar Tractor Co., Peoria, Ill.
Deere Industrial Div., John, Moline, Ill.
Hough Co., Frank G., Libertyville, Ill.
LeTourneau, Inc., R. G., Longview, Tex.
LeTourneau-Westinghouse Co., Peoria, Ill.

TRAILERS, log and lumber
Beall Pipe & Tank Co., Portland
Reliance Trailer & Truck Co., San Francisco

TRIMMERS
Albany Machine & Supply, Albany, Ore.
Irvington Machine Works, Portland, Ore.
Portland Iron Works, Portland, Ore.
Klamath Iron Works, Klamath Falls, Ore.
Klamath Mach. & Loco. Wks., Ukiah, Calif.

VALVES, FLANGES
Zidell Machinery & Supply Co., Portland.

VALVES, Steam, air, hydraulic
Valvair Corp., Akron, Ohio
Western Machinery Corp., Portland

WAREHOUSING and FINANCING
Douglas-Guardian Whse. Corp., New Orleans; Portland; San Francisco; Atlanta; Dallas.
Lawrence Warehouse Co., San Francisco

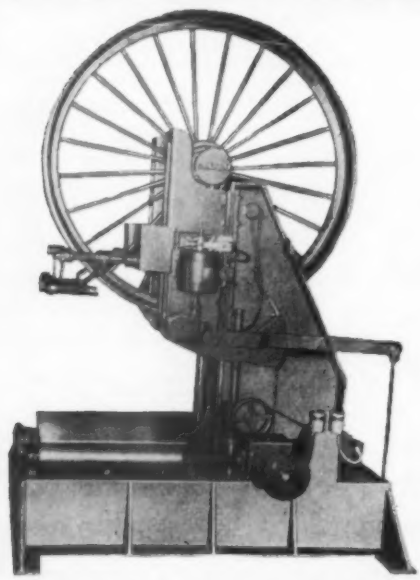
WATER COOLED GRATES
Western Foundry Co., Portland, Ore.

WINCHES
Hyster Company, Portland, Ore.
Pacific Car & Fndry. Co., Renton, Wn.; Chicago

WOOD PIPE
Federal Pipe & Tank Co., Seattle

WOOD PRESERVATIVES
Chapman Chem. Co., Memphis, Portland, Palo Alto
Dow Chemical Co., Midland, Mich.; Seattle
Monsanto Chemical Co., St. Louis, Seattle
Reichhold Chemical Co., White Plains, New York; Seattle; San Francisco; Port Moody
Wood Treating Chem. Co., St. Louis; Portland

WOODWORKING MACHINERY
Cascade Saw & Machine Co., Chehalis, Wash.
Greenlee Bros. & Co., Rockford, Ill.
Kohler-Joa Corporation, Sheboygan Falls, Wisc.; Chehalis, Wash.
Tyee Machinery Co., Seattle, Wash.
Woods Machine Co., S. A., Boston, Portland



SALEM EQUIPMENT

MAKES LUMBER BETTER GRADE with SALEM BAND MILLS

PLUS + KERF-SAVING PLUS + FASTER CUT

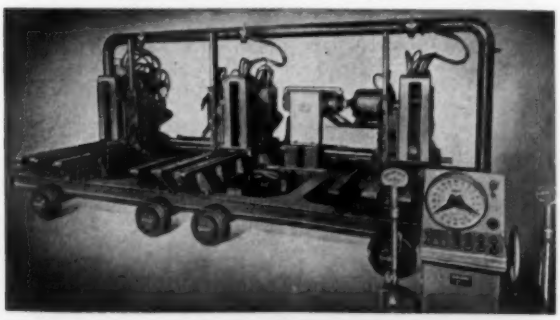
Biggest Selling Band Mill in 1960 . . . is SALEM

20 PIECES OF BAND EQUIPMENT DELIVERED IN FIRST 6 MONTHS THIS YEAR

Write for Illustrated Folder
on All Types of Sawmill Machinery

Salem Anti-Friction Bearing Band Mill

ONE PIECE OR A COMPLETE SAWMILL



Pre-determined Automated Carriage

Salem Equipment & Supply Co.

EARL R. HITCHMAN, Pres.

3371 D St. N. E. ● Salem, Oregon

PHONE Empire 4-6727

MANAGER AVAILABLE

Twenty years experience in all phases of logging and lumber manufacture in the Western Pine area. Past 8 years has been spent in production primarily, but has included some sales work, log buying and negotiations with the Forest Service as well as a considerable amount of labor relations and negotiations. Age 41, health excellent, family man, good habits. Am presently in upper management of large multi-plant firm with good reputation in the industry. Can provide ample industry and character references on request. Am looking for a challenging opportunity as a manager of a lumber operation.

Reply to TL Box 496, c/o THE LUMBERMAN
731 S. W. Oak Street, Portland 5, Ore.

FOR SALE OR TRADE

1. Stetson Ross 25" Blanker Model 6-12-CH6-2 complete with 7 Roll Feel Table and drives. Will negotiate to sell or swap for 24" Double Faced Profile Machines of late model.

Diamond National Corporation
W. G. Wallin
P. O. Box "D"
Red Bluff, California

WANTED: Pine Production Superintendent for large SW sawmill. Qualified person will have charge of production from the log pond to RR car. Must know Pine grades in detail and manner in which to produce best quality lumber and by-products at low cost. First letter must contain complete resume and references.
Write TL Box 498, c/o THE LUMBERMAN
731 S. W. Oak Street, Portland 5, Oregon

DRY DOUGLAS FIR VENEER core stock (4')

All grades available in carload quantities. Custom peeled and dried to your specifications. Our material widely used both in softwood and hardwood industries. For permanent source of supply, write or call

VENEER PRODUCTS, INC.
P.O. Box 556, Grants Pass, Ore.
Phone GReenwood 6-4474
TWX: GTS P 6159-U

FOR SALE

Sawmill, site and machinery — South Arm Fraser River, B. C. — good carriage, head saw, edger, gang, planer, chain, office building.

For details, call
BELL-IRVING REALTY, LTD.
Mr. Symons **Mr. Eaton**
MU 3-8411
930 W. Pender St., Vancouver, B.C.

FOR SALE:

SASH GANG

One Wickes Bros. 10x32"

See in operation at

SUN STUDS, INC.
P. O. BOX 789
ROSEBURG, OREGON

USED MACHINERY VALUES

15" #512 Newman b. b. planer.
60" Yates-American L. H. V-60 band resaw, r. b.
20" #414M Woods 12-k. elec. planer with profile.
25" #415-M Woods electric planer with profile.
6" x 4 Mattison moulder, b. b., all elec.
66" Klamath linebar resaw, r. b., 100 HP.
24" Irvington #43-A 11-saw auto. planing mill trimmer.
Gang cleat saw, b. b., 10 HP dir-drive.
30" arbor gang rip saw, b. b., 25 HP DMD.
Saw husk, steel, anti-friction, with top saw.
20' all steel, 48" blocks, modern carriage.
4" x 33" American long shift edger, motorized.
12" x 60" I. W. Johnson edger, 2½ yrs. old, 12 saws and collars, power shift, chrome plated arbor.
18" x 48" Wickes heavy cant gang.
22" x 30" Wehrhan gang, 75 HP.
#545 Greenlee 21' motorized d. e. tenoner.

TYEE MACHINERY COMPANY
1924 First Avenue South Seattle 4, Washington MUtual 2-5888

MACHINERIES: Joint venture sought to acquire machinery and equipment for logging and plywood production. Estimates U.S. $1.5 million additional investment. Offers investors profit sharing. Our investment about 7 million Pesos. Philippine Mahogany timber concession Negros Occidental 3.5 billion board feet; Davao 2 billion board feet.

VALDERRAMA LUMBER MANUFACTURERS CO., INC.
2003 Singalong Street — MALATE — MANILA — PHILIPPINES

WANTED TO PURCHASE

17' Veneer knife grinted.
17' Veneer clipper
12' Plywood press or parts for making one.

Write TL Box 493, c/o THE LUMBERMAN,
731 S. W. Oak Street, Portland 5, Ore.

LUMBER EXECUTIVE

Interested in management desires position with progressive firm. Would like opportunity to secure interest. Young, experienced (controller, officer, director) progressive, capable, honest, presently employed.

Write TL Box 499, c/o THE LUMBERMAN,
731 S. W. Oak Street, Portland 5, Ore.

GOOD USED MACHINERY

GANG SAWS

1—30" Mill Engineering Log Gang with 150 HP motor chipper, carriage, feed motor, saws and all starting equipment (12 years old)
1—24"Dominion Premier osc. Log Gang with 100 HP drive motor, chipper and motor, feed motor, saws and all starting equipment (4 years old)
1—34" (Record) Log Gang with saws, air carriage and extra parts.
1—26"(Record) Log Gang with saws, 100 HP motor and air carriage

EDGERS

1—6 x 36 I.W. Johnson Edger with 3 power shifters, 100 HP drive motor, direct feed motor, double feed rolls, air operated press rolls, 6-24" saws and all starting equipment (4 years old)
1—8 x 48 I.W. Johnson Edger, with 150 HP motor, 4 power shifters, double feed rolls, air operated press rolls, 10-26" saws and all controls (3 years old)
1—10 x 60 Phoenix R.B. stub edger

TRIMMERS & RESAWS

1—84" Prescott R.H. ball bearing Resaw with line-bar, 165 HP motor, MG set on feed, and grinding equipment.
1—24' wheel trimmer, ball bearing.
1—4 saw slasher —4' spacing, 40 HP drive motor, 2 15/16" arbors, all electric controls.
1—54" Yates R4 band mill.

MISCELLANEOUS

1—No. 736 Hanchett circle saw grinder motorized, late style.
1—72" 10 knife Carthage chipper, with 400 HP Synch. motor.
1—No. 45 Diamond ball bearing hog.
1—Pond saw, ball bearing, with 2-60" inserted tooth circular saws and 40 HP motor.
1—150 HP Cummins Diesel engine.
1—No. 61 Irvington end printer.
2— Log hauls complete each with 250' of ⅞ x 5 round link chain 42-3 point chain driven with 20 HP motors and controls.
600'—H130 camel back chain.
300'—H131 camel back chain.
150'—H122 box chain.
1—Glass pontoon raft 16' x 36'.

ROLL CASES

9—8x40x1 15/16" driven with 1"p R.C.
8—8x48x1 15/16" driven with 588 chain
10—8x32x1 15/16" driven with 1"p R.C.
10—6x20x1 15/16" driven with 1"p R.C.
12—10x28x1 15/16" driven with 588 chain

STATEMENT

LOGGING SUPPLIES

GOLDSTEIN & BLOCH

SAW MILL MACHINERY

Telephone LEnox 2-1234 **ABERDEEN, WASHINGTON** **P.O. Box 33**

THE LUMBERMAN'S ADVERTISING INDEX

A

Acme Chain Corp. 58
Acme Steel Co. 29
Albany Machine & Supply Co. 80
American Sheet Metal Works, Inc. 70
Archer Blower & Pipe Co., Inc. ..86
Armco Drainage & Metal Products 72
Atkins Saw Div., Borg-Warner Corp. 48

B

Bell-Irving Realty Ltd. 87
Borg-Warner Corp. 48

C

Caldwell Machinery Co. 82
California Blowpipe & Steel Co. .. 83
Carthage Machine Co. 71
Chapman Chemical Co. 65
Clayton Manufacturing Co. 73
Coe Manufacturing Co. 67
Colonial Products Co. 88
Columbia Rubber Mills 80
Corinth Machinery Co. 67
Corley Manufacturing Co. 73

D

Diamond National 87
Diehl Machine Works, Inc. G. M. 30-31

E

Eaton Manufacturing Co., Axle Div. 1
Ederer Engineering Co. 59
Ekstrom Carlson & Co. 78
Evinrude Motors, Div. of Outboard Marine Corp. 65

F

Falk Corp., The 51
Federal Pipe & Tank Co. 79
Filer & Stowell Co. 13
Foon, Alvin N. 88
Frick Co. 4
Friden 69
Fryer Dry Kiln Co. 73

G

Gallery of Gifts, Inc. 11
Gardner-Denver Co. 25
General Electric 62-63
Glidden Co., Industrial Paint Div. 33
Goldstein & Block 87
Guertin & Assoc., Ltd., R. 82

H

Haskew & Co., Inc., R. K. 83
Heil Co. 71
Heppenstall Co. 67
Hoe & Co., Inc., R. ..... Cov. 4
Hough Co., Frank G., Sub., International Harvester Co. .. 27
Humboldt Machine Works 84
Hyster Co., Hyster Leasing Div. .. 7
Hyster Sales Co. 79

I

Industrial Development Co. 82

J

Jackson Industries, Inc. ..... Cov. 2
Janzen Equipment Co. 83
Jeddeloh Bros. Sweed Mills, Inc. 26
Jones & Orth Cutter Head & Knife Div. of R. Hoe & Co., Inc. ..... Cov. 4

K

Kenton Machine Works 80
Keystone Machine Works 82
Klamath Iron Works 82, 85
Klamath Machine & Locomotive Works, Inc. 66

L

Lawson Stacker Co. 67
LeTourneau Sales & Service, R. G. 88
Link-Belt Co. 5
Luster Engineering & Machine Works 70

M

Mt. King Sawmills, Inc. 88
Manhattan Rubber Div., Raybestos-Manhattan Inc. 49
Medford Machinery Co. 73
Meiki Co. Ltd. 6
Mill Equipment, Inc. 81
Moline Malleable Iron Co. 50
Moore Dry Kiln Co. 75
Murphy Diesel Co. 21
Myers, Claude 80

N

National Machinery Sales, Inc. .. 26
Nelson Log Bronc Co. 80
Nichols Boat Works Co. 79
Northwest Chains & Sprockets Inc. 82

O

Ohio Knife Co., The 73

P

Pacific Machinery & Tool Steel Co. 84
Pettibone Mulliken Corp. 32
Phelps Bros. 82
Portland Chain Mfg. Co. 73
Portland Iron Works, Inc. 22

R

Rader Pneumatics, Inc. 67
Raybestos-Manhattan, Inc. 49
Ronald Press Co., The 68

S

Salem Equipment & Supply Co. 86
Sams & Wellons Mfg. Co. 83
Sawyer Machine Works 84
Scougal Rubber Mfg. Co. 82
Seattle Boiler Works, Inc. 80
Siempelkamp & Co., G., Maschinenfabrik 17
Signode Steel Strapping Co. 23
Smythe Co., Ray 82
Soderhamn Machine Mfg. Co. ... 3, 77 & 84
Soule' Steel Co. ..... Cov. 3
Spear & Jackson 75
Square D Co. 14-15
Standard Dry Kiln Co. 64
Standard Oil Co. of California 9
Sun Studs, Inc. 87
Sweed Mills, Inc. 26

T

Thompson & Holmberg, Inc. 82
Tidewater Oil Co. 20
Timberman's Engineering Co. 82
Transatlantic Machinery Co. 86
Tyee Machinery Co. 87

V

Valderrama Lmbr. Mfrs. Co., Inc. 87
Veneer Products, Inc. 87

W

Ward Construction Co., Inc., M. A. 82
Warner, Walter W. 82
Weaver Co., Inc., Chas. 83
West Coast Airlines 76
Wheland Co., The 74
White Motor Co., The 28
Woods Machine Co., S. A. 24

Z

Zidell Machinery & Supply Co. ... 85

POSITION WANTED

Graduated Mechanical Engineer (German) with very good background and several years experience in the WOODWORKING AND WOODFLAKING MACHINERY FIELD. Interested in changing present position. Especially interested in the design and development of machinery in the above mentioned field. Ambitious in my work and able to work responsibly on my own from layout to detail. West Coast location preferred.

Write TL Box 500, c/o THE LUMBERMAN, 731 S. W. Oak Street, Portland 5, Oregon

SAWMILL FILER REQUIRED

BAND SAW, GANG SAW EXPERIENCE NECESSARY

PERMANENT YEAR ROUND POSITION
PENSION, HOUSING, SCHOOLING
APPLY TL BOX 502, GIVING
REFERENCES AND SALARY EXPECTED

Write TL Box 502, c/o THE LUMBERMAN, 731 S. W. Oak Street, Portland 5, Oregon

BY APPOINTMENT

E. W. Newton, 1222 Vance Building, Seattle 1, Washington, Main 4-4537, will discuss in confidence logging contract for new mill to be erected in southeast Alaska. Inquiries requested from interested parties.

2½ YARD LIMA — 75 ft. straight boom and clam — also heel boom and grapple. For quick sale at wholesale.
1½ YARD LETOURNEAU — Log loader on electric wheels with 40" Berger air tongs. Electric outriggers for sale or rent.

"For dirt moving or log handling"

R. G. LETOURNEAU SALES & SERVICE
1601 N. E. Columbia — BU 5-1416
Portland, Oregon — TWX-PD 724

FOR SALE

Complete Sawmill and Planing Mill operating unit cutting 75 MBM per 8-hour shift. Double Circle Headrig — 60" band resaw — 10" edger. Ample Douglas Fir timber available for 5 to 7 years operation. For full details write

Mt. King Sawmills, Inc.
Dennison Street Wharf, Oakland 6, Calif.

Plant Engineer, Construction or Maintenance Superintendent. Qualified in Sawmill or Plywood, limited experience in Wallboard. Well versed n sawmill production, kilns, planers and shipping. Desires to locate with progressive firm as Plant Engineer, Production Supt. or combination of both. Available at 30 days notice.

Write TL Box 501, c/o THE LUMBERMAN 731 S. W. Oak Street, Portland 5, Oregon

AGGRESSIVE DISTRIBUTOR WANTED
on new type of pre-finished paneling with protective drop cloth. Tremendous potential. Write giving qualifications to:

ALVIN N. FOON
24200 Telegraph Rd.
Southfield, Michigan

QUARTER SAWED WHITE OAK PIECES

We are looking for a manufacturer that can use unlimited quantities of quarter sawed white oak pieces that will measure from 14" in length to 24" in length in widths from 1¾" to 3", in thicknesses of 1¼" to 1½". This material can be sold green or air dried on sticks or whatever the cusotmer will desire. We ask that all interested parties write to us immediately.

Write TL Box 503, c/o THE LUMBERMAN, 731 S. W. Oak Street, Portland 5, Oregon

SURPLUS MACHINERY FOR SALE

1—Jenkins #95A Double End Tenoner, w/12 Arbor Motors and 1 Feed Motor, all Motors Push Button Control, 84" Maximum Opening $6,000.00
1—Wilkins-Challoner Double End Tenoner, w/12 Arbor Motors and 1 Feed Motor, All Motors Push Button Control, 84" maximum Opening $4,000.00
1—#505C H. B. Smith 3-Drum Endless Bed Sander, 49" Wide, Direct Driven by 1-10 HP Motor, 2-7½ HP Motors and 1 HP Feed Motor, Push Button Control, Ser. 1055 ..... $7,500.00
3—#124 Mattison Automatic Stroke Belt Sanders ..... $750.00 ea.
2—#900 Diehl Electronic Splicers complete with 6.3 K.V.A. High Frequency Thermex Generators, (new 1955) ..... $4,500.00 ea.
1—#59 Woods 26" Double Planer, 6 Knife Round Heads, Coupled to 30 HP Motor $2,000.00
1—6" Vonnegut Moulder with Short Stock Feed Table $5,500.00
3—31" Hamant Vertical Graining Machines ..... $3,000.00 ea.
1—#90 Allington & Curtis Fan $750.00
2—Walters Lumber Transfers, Gas and Hydraulic Operated, 230" Wide, 86" Deep, Complete with Winch, (new 1956) ..... $2,500.00 ea.
1—Cincinnati - Bickford 4'9" Radial Drill with 5 HP Motor $750.00
1—Yates-American 177 Double Surfacer with 30 HP and 15 HP Motors, 220/-440 ..... $4,500.00

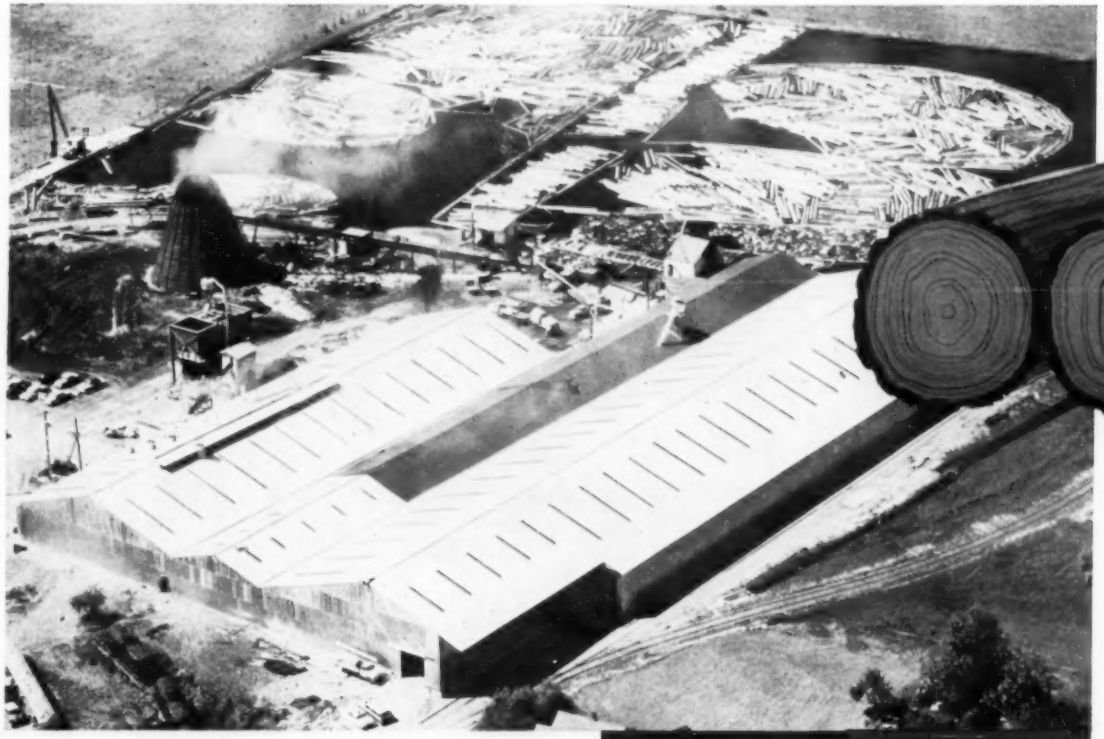
ALL MOTORS 220/3/60

Mereen-Johnson Panel Sizing Setup, as follows: The first machine is a "D" Type Plywood Ripper with three beams. The arbor space between the frames is 92". The space ahead of the beam is 90". The second machine is a 435-H with five chains. This machine has 113" between the frames and 113" ahead of the saws. The first machine has a 25 HP arbor motor at 3600 RPM, 220/440. It has a Reeves Variable Speed Drive with 5 HP motor. The second machine also has a 25 HP motor and Variable Speed Drive. There is a slat bed transfer connecting these two machines $9,500.00

Write: Attention: Mr. S. Pechenik or Phone: Red Lion, Pa. 33711
c/o Colonial Products Co., Broad & Park Sts., Dallastown, Pa.

MODERN, ROOMY, FIRE-SAFE SOULE' STRUCTURES

for new or expanding plywood plants



5406

Soulé steel structures are the modern way to achieve profitable plywood plants. You specify exact width, length, ridge height – and Soulé customizes your plant with mass production economies. You get vast clear area for efficient layout of manufacturing operations; and, because they are all-steel, Soulé structures help you save dollars on fire insurance.

Photo shows Inply Corporation's modern new Independence, Oregon plywood plant. Original operation was housed under the shaded roof area. Soulé structures gave Inply more useable floor area, dry, rugged, safe corrugated steel roof and side walls, and minimum maintenance.

Soulé
LEADER IN STEEL BUILDINGS

SOULE' STEEL COMPANY

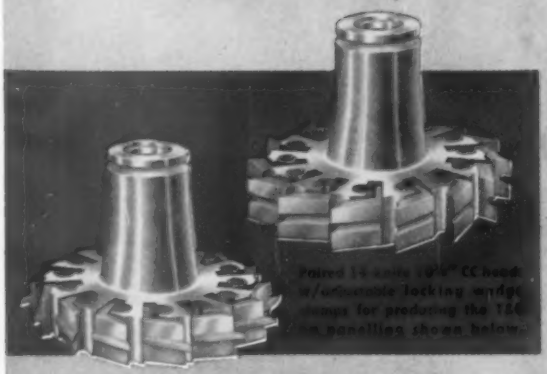
SAN FRANCISCO • PORTLAND • LOS ANGELES • SEATTLE • SPOKANE • PHOENIX • DALLAS • SALT LAKE CITY

GET *More Output* PER SHIFT

AT LOWER OVERALL COST, WITH PRECISION-ENGINEERED

L-TYPE

CUTTER HEADS by JONES & ORTH



Typical matched set of J&O 12-knife milled-to-pattern profile L-type heads, 10½" cutting circle, for high production of V-edge panelling shown.

The design of the L-type J&O heads shown allows the maximum number of knives in a given circle, hence permits higher feed speeds, delivering more output per shift.

Get More Out of Your Equipment With J&O Heads and Services

It makes a difference where you get your L-type cutter heads. JONES & ORTH gives you *more* in specialized cutter head manufacturing experience (exclusively cutter heads and knives since 1921), enabling us to come up with the *right* answers on your cutter head design problems.

Our large stocks of cutter head components permit unusually fast deliveries on most heads, and our personalized *"Follow-Through Service"* keeps all orders moving on schedule. May we serve *YOU?*

©1957—R. HOE

For Follow-Through Service "Buzz" HOE—J&O!

C-9

All Types To Meet Your Needs!

Jones & Orth also offer a complete range of cutter heads in all types, including our popular H-type, for all requirements, with either regular or carbide-faced knives. Call your J&O distributor today!

R. HOE & CO., INC.

JONES & ORTH

CUTTER HEAD & KNIFE DIVISION

Full Manufacturing and Warehouse Branches:

CHICAGO • BIRMINGHAM • MEMPHIS • SEATTLE • PORTLAND, ORE. • HIGH POINT, N.C.